

AMERICAN

JOURNAL OF INSANITY.

VOL. XLVI. APRIL, 1890. No. IV.

UTICA, N. Y.:
STATE LUNATIC ASYLUM.
LONDON: Young J. Pentland, 38 West Smithfield, E. C.
EDINBURGH: Young J. Pentland, Teviot Place.

Ellis H. Roberts & Co., Printers, 60 Genesee Street, Utica.

[Entered at the Post Office at Utica, and admitted for transmission through the Mails
at second class rates.]

THE AMERICAN JOURNAL OF INSANITY.

THE AMERICAN JOURNAL OF INSANITY is published quarterly, at the State Lunatic Asylum, Utica, N. Y., under the editorship of the medical superintendent, assisted by the medical staff and the collaboration of other alienist physicians at home and abroad. The first number of each volume is issued in July.

EDITOR,

G. ALDER BLUMER, M. D., *Medical Superintendent.*

ASSOCIATE EDITORS,

CHARLES G. WAGNER, M. D.,

WILLIAM MABON, M. D.,

CHARLES E. ATWOOD, M. D.,

RICHARD R. DALY, M. D.,

} *Assistant Physicians.*

THEODORE DEECKE, *Special Pathologist.*

TERMS OF SUBSCRIPTION,

Five Dollars per Annum, in Advance.

EXCHANGES, BOOKS FOR REVIEW, and BUSINESS COMMUNICATIONS may be sent to the Editor, addressed as follows: "JOURNAL OF INSANITY, STATE LUNATIC ASYLUM, UTICA, N. Y."

The JOURNAL now closes its forty-sixth volume. It was established by the late Dr. Brigham, the first Superintendent of the New York State Lunatic Asylum, and after his death edited by Dr. T. Romeyn Beck, author of "Beck's Medical Jurisprudence." Dr. John P. Gray, with the Medical Staff of the Asylum as his associates, was editor-in-chief from the year 1854 until his death, in 1886. It is the oldest journal in America devoted especially to Insanity, its Treatment, Jurisprudence, &c., and is particularly valuable to the medical and legal professions, and to all interested in the subject of Insanity and Psychological Science.

CAN-
RE-PRODUCED
PHOTOGRAPH

Dyce & Co.

I-Not

ICE

GRAPH

* Read before the Detroit Medical and Library Association, October 21, 1889.

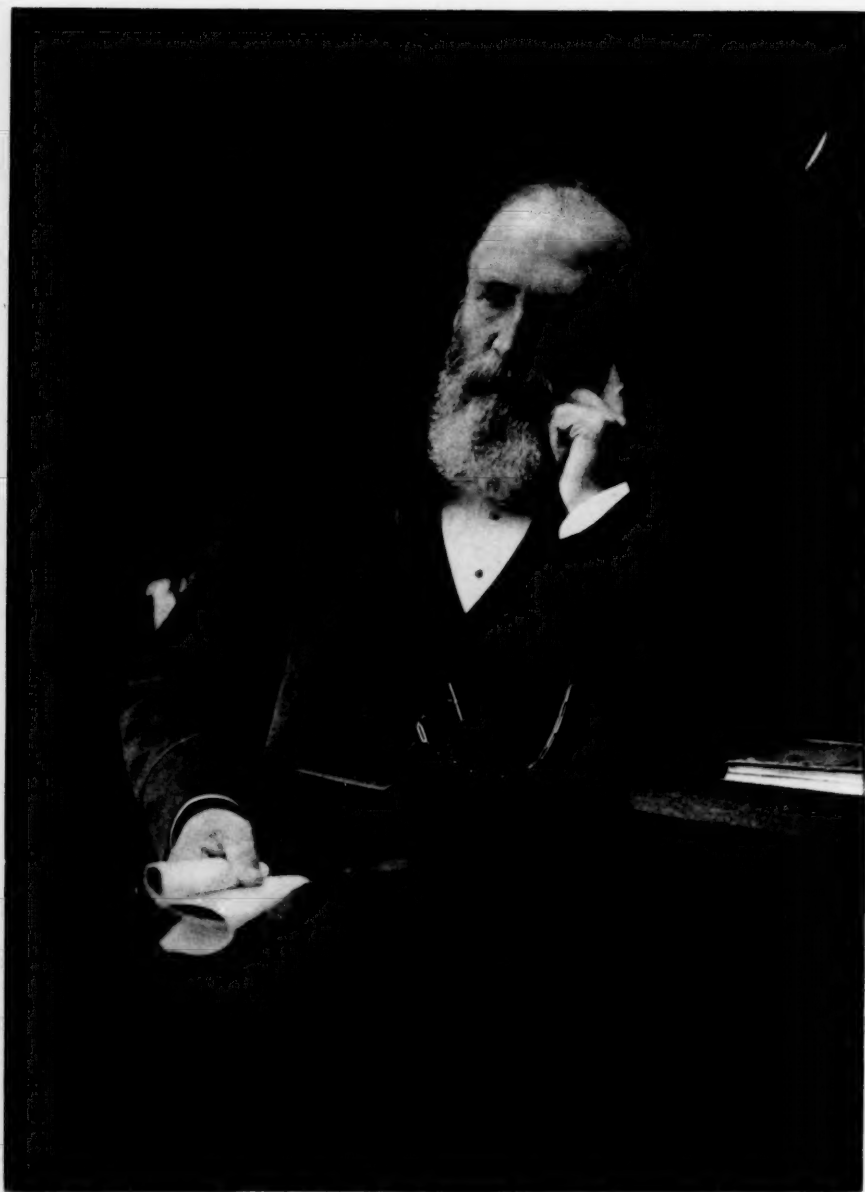


PHOTO-GRAYURE CO., N. Y.

D. Yellowlees.

AMERICAN JOURNAL OF INSANITY.

APRIL, 1890.

ALCOHOLIC HALLUCINATION.*

BY FREDERICK W. MANN, M. D.,
Detroit, Michigan.

The mental disturbances arising from the action of alcohol are noteworthy for their diversity of manifestation. They not only simulate all the phenomena of insanity from simple melancholia or emotional exaltation to fully systematized hallucination, but they comprise all the mental phenomena, typical of other toxic agents. The splendid phantasmagoria of opium, the vivid visual and auditory imagery of atropine, the time and space illusions of hashish, the despondent forebodings of henbane, all find their counterparts in the delirium of alcohol.

We do not propose to speak of the simpler forms of sensory or intellectual disturbance attributable to the action of alcohol. Between these and the more complex pathological phenomena, the difference is only one of degree, physiological illusion passing by imperceptible gradations into hallucination. In considering alcoholic hallucination we do not, of necessity, therefore, refer the phenomena to any particular site or area. An hallucination is the result of the projection of a mental image outwards, when there is no external agency answering to it. A person is hallucinated when these projections of the imagination no longer correspond with external reality. There is no essential difference between the simpler forms of illusion, and complex forms of hallucination, save that sensation the direct factor of perception, is more and more subordinated and the indirect or representative elements of perception are more and more accentuated. In severe forms of hallucination of the insane, where the amount of sensuous impression is practically evanescent, the imagination and representative elements of cognition are engaged in the association of images having all the significance and force of actual percepts. This is

* Read before the Detroit Medical and Library Association, October 21, 1889.

equally so with alcoholics, although with these latter, it is even more difficult than with the insane to say how far the elements of sensation enter into the composition of the hallucination.

The following are accounted by Griesinger the proximate causes of hallucination: A state of deep mental and bodily exhaustion; local diseases of the organs of sense; morbid emotional states, as fear; the outward calm, between sleeping and waking, and the action of certain poisons, as opium, belladonna, or cannabis indica. In alcoholismus the mental disturbances are manifestly due to either the first or last mentioned of these causes—the state of deep bodily and mental exhaustion the condition of inebriety engenders or the toxic action of the drug on the central nervous system.

Various theories have been advanced in explanation of the origin of hallucination. These for all practical purposes are, however, reducible to four, the peripheral or sensory, the psychical, the psycho-sensory, and that one which, relying largely upon most recent acquisitions in cerebral physiology and pathology, attributes all hallucination to super-excitation of the perceptive centres of the cortex. There is a daily increasing amount of evidence in favor of the cortical origin of hallucination. Accepting this latter theory we may still preserve the convenient if incomplete distinction established by Baillarger and divide hallucinations into psycho-sensory or those having an originating impulse in the peripheral sense organs, and psychical hallucinations, those due to automatic irritation of the central perceptive mechanism. To these, the Salpêtrière School, inspired by the fertilizing researches of Charcot and his associates, have recently added what they term a psycho-motor hallucination, one arising by analogous process to the sensory ones, in the cortical motor centres.

The resemblance of alcoholismus to insanity has been so frequently and forcibly insisted upon, that we do not feel called upon to reiterate the many points, by which insanity is imitated. Among the insane auditory hallucinations are most prevalent. The ear, as custodian of the keys of language, presides over a wider empire of experiences than any other sense—the largest proportion of our thought being dependent upon the integrity of our auditory impressions. Most of the writers on alcoholismus have considered the most frequent hallucinations to be those of vision. Modesty precludes opposing our own limited experience, to the general testimony of the many distinguished authors who have investigated this subject, otherwise we should be disposed to

insist that in this respect also alcoholismus shows no deviation from the phenomena of insanity in that auditory hallucination is a more common feature of that disease than visual hallucination.

The visual hallucinations of alcoholics are exceedingly varied. They may be hideous, grotesque or awful, or they may be gorgeous, splendid or inspiring. Unpleasant features usually predominate, and the patient is puzzled and tormented by the presence of rats, mice, beetles, worms, fleas, and other insects. This condition of zoöpsic hallucination is one of the commonest among the phenomena of alcohol poisoning, and may be illustrated by the account given us by a patient whose whole course of hallucination was strikingly typical. This description is written by the patient himself, without any prompting or assistance. He tells us how he arose from his bed to take a dose of a solution of bromide of potash which had been prescribed for him—

I began to think about returning to my bed when, looking down at the floor, I saw two tiny white mice playing with each other, rolling and tumbling each other over and over and capering in the most frolicsome manner.

I was much amused but did not stir for fear of disturbing their play. After a time I thought I would see if I could make friends with them, so placing my hand down on the floor I chirped to them.

They seemed to have discovered me for the first time, but were not frightened in the least, and they ran to my hand up my arm over my shoulders down my back and before I could get them off from me they were in my hair, digging with their sharp little claws into my scalp.

I sprang to my feet and ran my hands through my hair frantically.

They ran down to the floor and quickly disappeared. Almost in an instant they were back again bringing with them a dozen or more companions.

Some were white like themselves, others were red, some were striped like a zebra, and on close inspection I found that every color one could imagine was represented.

Some had long ears like a rabbit, and no tails, others had drooping ears like a hound, and very long tails. A few were gorgeously arrayed with small blankets, bedecked with beads; and spangled with glittering gold stars.

Some of them walked upright on their hind legs and carried little walking sticks of odd design. Others walked on their front feet and held their tails erect in the air, presenting much the appearance of a toy church steeple. Some stood erect on the tips of their tails and whirled round like a top. After a while they all began a giddy whirling motion.

While they were in this act, in sprang a band of huge black rats, and began a vigorous warfare with my tiny intruders; causing them to scamper in every direction and vanish from sight. The rats then began a rough play, almost a rough and tumble fight. Occasionally one would come close up to me and turn up its red serpent-like eyes and bark at me. I heard a slight noise in the direction of the door and looking up saw two large black cats sitting up in the open transom and carefully adjusting their hind legs. In an instant they

sprang with loud growls in the midst of the rats, and hurled them in the air till they all lay on the floor dead or kicking or breathing their last.

Then each cat seized a rat and sprang out through the transom, quickly returning for another and another till they had cleared the room much to my relief.

Then they returned and after walking about seated themselves in the middle of the floor. Then in sprang a savage looking bull-dog and giving a fierce bark which brought me to my feet in terror, he seized one of the cats and shaking it ferociously threw it at my feet. He seized the other and bounded out of the room, followed by the wounded cat he had first encountered.

I heard them fighting and growling in the hall for a moment and all was still.

We do not recall having seen any explanation of the reason why animals enter so largely into the composition of the primary illusions of alcohol. These illusions a little interrogation of the patient will usually substantiate as present. A patient, only the other day, declared how he saw a rhinoceros, several huge elephants, and strange-looking reptiles browsing in the yard.

Auditory hallucination, such a frequent concomitant of all delusional insanity is very perfectly developed among alcoholics. It may assume all forms from simple auditory illusion to verbal auditory hallucination. The following case extracted from our records will illustrate the imperative character of this form of hallucination:

Mr. G. W., a lawyer from Canada, was a man of recognized ability and eminence. His practice was principally jury practice, and his imagination was the faculty he most depended on to give a semblance of reason to ambiguous circumstances. As he himself said, in his efforts before the jury, his imagination was his best used faculty. As a result of highly differentiated conviviality, Mr. W. began to mix his drinks in novel and insidious combinations; he tried mixtures of beer and champagne, but finally agreed that the union of champagne and whisky best fulfilled the functions of an intoxicant by affording the maximum of stimulation with the minimum of functional inconvenience. His wife, observing symptoms of mental aberration, removed him to this city where he became thoroughly hallucinated. His primary hallucination was somewhat after the following nature:

Satan and the Almighty were engaged in that perpetual spiritual feud for which they have become celebrated. The devil, with characteristic inventiveness, had conceived a scheme whereby he was enabled to suspend at will the action of gravity, and after setting fire to the moon intended to precipitate it upon the earth and so annihilate the human race. On the lunar surface there was but one inflammable point, and to reach this one thing was essential—the mystic chair. The mystic chair was on earth and possessed the property of permitting anyone standing on it to reach any desired height. The Almighty, speaking to G. W., said: "Bring me the mystic chair." Mr. W. was only restrained from searching for the chair by main force.

Throughout an extended period of Mr. W.'s detention he held frequent conversations with the Deity. He got on intimate terms, and always addressed him as "My Lord." His illusions were precise, extending to the accentuation of words and the cadence of sentences. He would hold conversations like this: "Have I been unjust, my Lord?" "Did you say unjust, my Lord?" "Did you say unjust or ungrateful, my Lord?" "Oh; unjust, my Lord; no, I have never been unjust, but I have been ungrateful."

The varieties of auditory hallucination are of course endless, and the experience of every physician will supply many examples.

The least common among the illusions of alcohol are the hallucinations of taste and smell. In this the correspondence between alcoholism and insanity is again maintained. The rarity of these illusions is to be expected, the sense of smell in the human organism at least being reduced to rudimentary importance. The mental associations clustering round the sense of smell are very strong—stronger than any other impressions received from without—but they are limited in range. What is gained in intensity and immediateness of reflex is therefore lost in the paucity of association whose revivability is possible by olfactory excitation. An odor establishes few relations in thought and feeling, but those few are immediate and homogeneous, no simple sense impression being capable of so vividly renewing the force of a former excitation as an olfactory one. From this lack of memory images it follows that nothing is so evanescent as the memory of an odor; the poet who wandering through the streets of Köln discerned seventy-two distinct stinks and several well defined smells must have possessed the olfactory apparatus of a lower organism. Anyone who has visited that fragrant city will on analyzing his olfactory reminiscences find them to be anything but "sweetly varied."

It is dubious if hallucinations of taste and smell should be comprised under Baillarger's classification of psycho-sensorial hallucination. Sensation is apparently not a factor in the formation of such hallucination—the imagination does not wait upon it, but initiates its appearance—and the resulting hallucination is psychical. The hallucinations of taste, for instance, are usually connected with ideas of poisoning, and it is in these the hallucination in the main consists, not in any perversion of sensibility. The hallucinations of smell are also frequently the accidental points of some systematized hallucination. A patient imbued with the dread of hell naturally becomes susceptible to the fumes of sulphur.

sprang with loud growls in the midst of the rats, and hurled them in the air till they all lay on the floor dead or kicking or breathing their last.

Then each cat seized a rat and sprang out through the transom, quickly returning for another and another till they had cleared the room much to my relief.

Then they returned and after walking about seated themselves in the middle of the floor. Then in sprang a savage looking bull-dog and giving a fierce bark which brought me to my feet in terror, he seized one of the cats and shaking it ferociously threw it at my feet. He seized the other and bounded out of the room, followed by the wounded cat he had first encountered.

I heard them fighting and growling in the hall for a moment and all was still.

We do not recall having seen any explanation of the reason why animals enter so largely into the composition of the primary illusions of alcohol. These illusions a little interrogation of the patient will usually substantiate as present. A patient, only the other day, declared how he saw a rhinoceros, several huge elephants, and strange-looking reptiles browsing in the yard.

Auditory hallucination, such a frequent concomitant of all delusional insanity is very perfectly developed among alcoholics. It may assume all forms from simple auditory illusion to verbal auditory hallucination. The following case extracted from our records will illustrate the imperative character of this form of hallucination:

Mr. G. W., a lawyer from Canada, was a man of recognized ability and eminence. His practice was principally jury practice, and his imagination was the faculty he most depended on to give a semblance of reason to ambiguous circumstances. As he himself said, in his efforts before the jury, his imagination was his best used faculty. As a result of highly differentiated conviviality, Mr. W. began to mix his drinks in novel and insidious combinations; he tried mixtures of beer and champagne, but finally agreed that the union of champagne and whisky best fulfilled the functions of an intoxicant by affording the maximum of stimulation with the minimum of functional inconvenience. His wife, observing symptoms of mental aberration, removed him to this city where he became thoroughly hallucinated. His primary hallucination was somewhat after the following nature:

Satan and the Almighty were engaged in that perpetual spiritual feud for which they have become celebrated. The devil, with characteristic inventiveness, had conceived a scheme whereby he was enabled to suspend at will the action of gravity, and after setting fire to the moon intended to precipitate it upon the earth and so annihilate the human race. On the lunar surface there was but one inflammable point, and to reach this one thing was essential—the mystic chair. The mystic chair was on earth and possessed the property of permitting anyone standing on it to reach any desired height. The Almighty, speaking to G. W., said: "Bring me the mystic chair." Mr. W. was only restrained from searching for the chair by main force.

Throughout an extended period of Mr. W.'s detention he held frequent conversations with the Deity. He got on intimate terms, and always addressed him as "My Lord." His illusions were precise, extending to the accentuation of words and the cadence of sentences. He would hold conversations like this: "Have I been unjust, my Lord?" "Did you say unjust, my Lord?" "Did you say unjust or ungrateful, my Lord?" "Oh; unjust, my Lord; no, I have never been unjust, but I have been ungrateful."

The varieties of auditory hallucination are of course endless, and the experience of every physician will supply many examples.

The least common among the illusions of alcohol are the hallucinations of taste and smell. In this the correspondence between alcoholism and insanity is again maintained. The rarity of these illusions is to be expected, the sense of smell in the human organism at least being reduced to rudimentary importance. The mental associations clustering round the sense of smell are very strong—stronger than any other impressions received from without—but they are limited in range. What is gained in intensity and immediateness of reflex is therefore lost in the paucity of association whose revivability is possible by olfactory excitation. An odor establishes few relations in thought and feeling, but those few are immediate and homogeneous, no simple sense impression being capable of so vividly renewing the force of a former excitation as an olfactory one. From this lack of memory images it follows that nothing is so evanescent as the memory of an odor; the poet who wandering through the streets of Köln discerned seventy-two distinct stinks and several well defined smells must have possessed the olfactory apparatus of a lower organism. Anyone who has visited that fragrant city will on analyzing his olfactory reminiscences find them to be anything but "sweetly varied."

It is dubious if hallucinations of taste and smell should be comprised under Baillarger's classification of psycho-sensorial hallucination. Sensation is apparently not a factor in the formation of such hallucination—the imagination does not wait upon it, but initiates its appearance—and the resulting hallucination is psychical. The hallucinations of taste, for instance, are usually connected with ideas of poisoning, and it is in these the hallucination in the main consists, not in any perversion of sensibility. The hallucinations of smell are also frequently the accidental points of some systematized hallucination. A patient imbued with the dread of hell naturally becomes susceptible to the fumes of sulphur.

The following case records the only occasion we have encountered this form of hallucination with alcoholics. It will be noticed that sulphur was smelt, and the hallucination probably originated in the moral defections of the patient leading him to a foretaste of punishment:

I. G. was a saloon-keeper, having the characteristic plethora of an habitual soak, who after continued excesses in the enjoyment of Grosse Pointe whisky was attacked by delirium tremens. His primary hallucinations were mainly auditory and visual, but he later exhibited those involving the sense of smell. He spent most of his time groping around the room, plugging every key-hole and cranny with paper, his reason being that a green-eyed and red-skinned demon on the outside of the door was insufflating a fine dust through every available aperture. This dust he said resembled iron-filings. Later the patient exhibited paroxysms of suffocation, which he affirmed due to the sulphurous stench of the dust.

This case seemed a favorable one for making a few tests bearing upon the much-questioned identity of the senses of taste and smell. Here was a disorder affecting the olfactory judgment in its peripheral or central mechanism, and an opportunity was presented of testing the patient's accuracy in the interpretation of gustatory impressions. The patient was blindfolded and the anterior nares plugged with absorbent cotton. Small pieces of meat were given him and he was told to name the different foods. The beef and ham he recognized as such, chicken he called beef, and veal, chicken. Beef tea he could only designate as soup. Port wine he discriminated correctly. Sherry wine he called catawba, and whisky was promptly recognized as an old familiar friend. Similar experiments on others gave an aggregate result little differing from this one—conclusions were therefore negative.

Before passing from the consideration of sensorial hallucination, a word should be said on the snake hallucination. Disorders of this kind are associated in the popular imagination with excesses in the use of alcohol. "Seeing snakes" is in reality not a common experience. The two or three cases we have seen convinces us, however, there is some basis for esteeming this one of the occasional retributions of excessive zeal in devotion to Bacchus.

A gentleman, a lawyer from Pennsylvania, a highly educated and cultured man, recently came under our care for alcoholic mania. He went through thrilling experiences of an auditory and visual kind—attempted to jump out of the window to keep an appointment with the Deity at the City Hall (this being before

the days of boodle charges), and believed himself sentenced to one hundred years in hell for every moment he was late. This patient wrote an account of his experiences, which assumed the form of a coherent and systematized hallucination. To answer for his offenses he was summoned before the high court of Bacchus, taken a horrible journey down a dark, slimy, murky river, and confronted by a judge, himself a gruesome monster, and a grand jury of reptiles whose evil countenances would by actual contrast have imparted beauty to the smiles of the saurians. Extensive quotation cannot be made from this document, but illustrative of the vivid and insistent character of this form of hallucination, we give in his own words the sentence and penalty imposed by this terrific tribunal—

The sentence of the court is that you be conveyed by the sheriff to a den of deadly fiery serpents of every degree of size of strength of venom. With every cast of tooth and fang; with every varying capacity of sting and bite—there to remain (in open view of a craft of safety moored on the shores of the river, which boat you are at perfect liberty to reach, and cross to the other side, if in your feeble strength you are so presumptuous as to attempt it) until the flesh be stripped from your bones, and your bones disjointed and heaped in unsightly masses. All to await the further orders of the court.

Mr. Sheriff, you will take the prisoner in charge and see that the sentence of the court is executed.

He opened a door exposing to view a broad low-roofed brilliantly-lighted passage-way cut in the darkness leading down to the dark river. At its moorings where the murky tide met the finlands of the midnight swamp lay a life-boat manned by a single stalwart oarsman.

The track to the water's edge was paved with angry hissing serpents. Huge monsters met each other and linked together in ugly arches across the path-way. Great ugly looking heads protruded from the dark walls, and with open fang-like mouth and arched necks cast quick fiery glances at me.

The boatman beckoned to me and consulting his watch, shouted "four and twenty hours will the boat yet tarry."

The sheriff produced a bottle of brandy and measuring out a small quantum handed it to me saying, "Drink this and pass to your torture." I drank it and raising myself up and nerving my arm, I struck him a blow in his hideous face with all my force. He fell to the floor and the bottle dropped from his hand. I seized it and quickly draining its contents, sprang in among the hissing serpents.

They leaped at me and entwined themselves around my legs and arms. They envired my body and tore and lacerated my flesh. I tore them from me and flung them into the darkness. Seizing a large heavy one, I pulled off its head, and used its body for a weapon. As I would spring towards them, they would retreat, but others would grasp me from behind. I would turn and stamp and crush those in the rear, only to find them closing in upon me in front. Thus I fought them with every muscle strained to the utmost tension.

Wounded and bleeding I passed down beyond the half-way mark; two-thirds of the distance had been reached. I was growing faint from loss of blood; my overtaxed muscles were growing weak and feeble. I paused for a moment to breathe when the boatman shouted, "Courage! Courage! you have three hours yet."

I renewed my struggle with desperate effort; grinding my assailants under my feet, beating them away from my track, tearing them in pieces with my hands and tossing them high in the darkness.

I had almost reached the water's edge, "Quick! Quick!" came from the boatman. I had only one more monster between me and safety. I seized it; it threw its heavy coil around me. I unwound it, and throwing it to the earth stamped upon its head. "Quick! Quick!" shouted the boatman. The reptile raised its head again. I caught it in my hands. "Too late! too late!" said the boatman, and as I flung the serpent behind me the boat moved off from the land.

The snake hallucination is difficult to explain. Disturbances in the peripheral organs of vision seem hardly competent to account for such aggravated symptoms, although there are facts suggesting the plausibility of such an explanation. A patient in a room, where the pattern of the wall paper or the carpet abounds in geometrical figures and circles, is apt to find these endowed with gyratory movement, and as a result may come to imagine snakes about him. But the usual causes of this hallucination seem central in origin and due to pre-existing imaginative impulse. Why should this impulse assume the snake form? May not the explanation lie in the facts of nascent consciousness? We know that stimuli cannot be coördinated without some ganglion through which they are brought into relation. In effecting this coördination the ganglion must necessarily be subject to the influences of each stimulus and must undergo a succession of changes. This action and its reaction implying perpetual experiences of resemblances and differences constitutes according to psychologists the raw material of consciousness. Therefore, as a corollary of this process, Herbert Spencer asserts that as "consciousness is developed some kind of instinct becomes nascent." That there is a nascent instinctive dread of the serpent in man and monkey is obvious. There is every reason for it. The early history of our race abounds with record and tradition of that internecine strife between man and the serpent. We find the serpent permeating all his mythology, a chief feature of his legends, inscribed on his monuments, engraved on his symbols, and worshipped as his God.

Even before this period the dread of the serpent may have been implanted in our human neuroplasm. Dr. A. E. Brown recently made some experiments in the Philadelphia Zoölogical

Gardens, and found that monkeys, who born and reared within the gardens, had never seen a reptile, yet exhibited great fear and curiosity when a snake was placed in their cage. An alligator or turtle caused no surprise whatever. Other animals like the ox and the hog were either perfectly indifferent, or manifested no fear of the snake. These experiments which were repeated in many ways could lead him to but one conclusion—"that the fear of the serpent became an instinct in some far distant progenitor of man by reason of his long exposure to death in a horrible form from the bite, and that it has been handed down through diverging line of descent which find their expression to-day in *Homo* and *Pithecus*." What we know of the facts of hereditary transmission encourage the belief that under exceptional circumstances latent ancestral experiences can be revived. As an example we may mention the fact of the speech function in certain pathological conditions reverting to the primary stages of language, the patient designating objects by simple onomatopœia. From those far distant days when our common arboreal ancestor climbed the tree to escape the serpent's fang, and yet found no safety from pursuit, or from those later days when primitive man erected his dwellings in the midst of lakes that he might among other things avoid the gliding treachery of the serpent,—from those days naught divides us, but the long lapse of unnumbered years and the acquisition and possession of a sublime reason. What, therefore, more likely, that when that reason lies prostrate and exhausted at the feet of sensual excess, that man's consciousness deprived of higher inhibitions should revert once more to that epoch when the common progenitor of *Homo* and *Pithecus* lived in perpetual awe, and labored in continual warfare with our old enemy—the serpent.

The enumerable forms under which the hallucinations termed psychical are manifested with alcohols preclude their description here, in anything but general terms. In these cases the imagination seems to ransack the remote recesses of experience for the materials of its fabrications. Every imaginable delirious combination is possible. According to Magnan, the hallucinations of topers, are "especially characterized by their mobility and their horrid nature." In the more chronic forms of alcoholismus we rarely find the hilarious illusions which accompany many forms of acute mania. The patient is pursued and followed. His acts of violence are attempts to free himself from tormentors. He is cognizant of conspiracies to murder him in sleep. He learns of

plots against himself and family and busies himself in the construction of counterplots. He is a participant in all kinds of catastrophes. Foremost among these hallucinations are those in which the Deity particularly in his character of a judge or avenger dominates the imagination of the patient. The Devil also intrudes upon his reveries, and intimates the proximity of that Inferno to which the devotee of Bacchus feels himself already condemned.

The following record of a recent case may be given to illustrate these forms of mental derangement :

J. K. was a well-known, a justly-renowned inebriate of this city. His visits were always diverting in consequence of the amplitude and variety of his hallucinatory experiences. He usually exhibited three distinct stages of hallucination. First, one of maudlin sentimentality during which his countenance would crystallize into a perpetual grin, and to those around him he would adopt the languishing manner of an enamoured lover. During the second stage he would be morose and gloomy and his hallucinations would be of a terrible character. His wife and children would be killed before his eyes in a railroad disaster, or would meet some equally untoward fate by inundation, explosion, fire or other calamity. In the third stage he would be extremely violent, and have to be forcibly controlled. Up to this period Mr. K.'s hallucinations seemed purely psychical; they usually concerned others more than himself, were circumstantial, persistent and hypnagogic. His violence was usually the outcome of imagined personal persecution, although on the last occasion he was treated he was forcibly restrained from throwing himself out of a window, to which act he was impelled by the persistent determination of five young ladies to disrobe in his bed-room.

The Salpêtrière School have recently described a form of hallucination they term "psycho-motor hallucination." If we accept the theory that hallucinations are due to centrally initiated irritation of the cortical sensory centres, there seems to be no reason why an analogous process may not take place in the motor regions of the cortex, and the resulting hallucination will be a motor projection. The psycho-motor hallucination has as yet only been described in its connection with the speech function. The *idea* is, as we know, a result of the association of memory images stored in certain common centres of perception, as the auditory, the visual, and so forth. The *word*, which is the symbol of the idea, is composed of auditory and visual images, and also images of the expressive acts, the articulo-motor and grapho-motor images. Either of these four images is of itself incapable of reviving the idea of an object, unless a higher cerebral act associates it with the different sensory images of that object. But imagine the motor centres independently energized, say those presiding over the

articulo motor mechanism; the patient then articulates without initiation by the active ideational centres, and as a result where this speech motion is thus projected in consequence of related associations synchronously vivified, the patient perceives his own voice, as we do in dreams, and attributing the speech to external voices, becomes hallucinated. It will be observed this is an entirely different phenomenon to auditory hallucination and the hearing of external voices, for the impulse may not be projected as an articulation but simply as an articulatory motion; so also, is it different from that form of disorder called echolalia, in which the insane hear their thought plainly formulated in their own ear,—this process only involving the sensory speech centres.

We have never heard of this form of hallucination being described except as a phenomenon of insanity, and had it not been for the interesting examples lately recorded by M. Seglas, of the Salpêtrière, and the differential points his luminous ideas have so clearly established, the following case would have been passed by, as one of verbal auditory hallucination:

Dr. T. was a physician practicing in the northern part of this State. When a boy he had fallen and fractured his skull and was subject to paroxysmal headaches. He was a man of refined tastes and quiet studious habits. He contracted the habit of whisky-drinking to allay the cephalalgia. It was periodic and between times his habits were so exceptional as to divert all suspicion from his alcoholic propensities. When he came for treatment Dr. T. was suffering from all kinds of visual hallucinations. Men, women, children, satyrs, harpies, devils, imps, and all the heroes of mythological notoriety paraded around his bed making minatory grimaces. On the second day he began to hear voices within him. An emissary of Satan took up his residence "just below the liver," and conversed with him. A blister was applied over the site indicated, but the devil was not of the kind that comes out by counter-irritation. Sometimes the internal voice would speak by his mouth and response would be made in a different tone of voice. The patient was perpetually speaking to himself, but close examination and the frequent repetition of the above noted phenomena, revealed that as compared with echolalia the sequence of phenomena was reversed so that this case was actually one of psycho-motor hallucination.

Incoördinated psycho-motor activity offers an explanation of many conditions hitherto interpreted on the basis of sensory disturbance. Duplication of personality, a not uncommon form of hallucination, is more intelligible as a dichotomy between the intelligence and the motor phenomena of speech, than as a derangement of relations in sensory sequences. The delirium known as "low-muttering" occurring, as it does, in typhoid conditions—in conditions where excessive and active mental action is unexpected, might be due to toxic irritation of the motor centres.

In one important feature hallucination and especially alcoholic hallucination, bears a striking resemblance to certain phenomena of hypnotism. M. Ballet, in a recent number of *Le Progrès Medical*, described a patient in whom the power of revivifying representative images was pathologically increased. The vaguest sight or sound suggestion sufficed to awaken definite images. The patient was in a condition of conscious hallucination. M. Ballet regards ethylism as an important etiological factor in his case. In cases of alcoholic hallucination the patient will readily "represent" on the suggestion of another. These cases seem to lie somewhere between dementia, where the power to represent, is obviously diminished, and hypnotic conditions, where the representative consciousness is actualized at the suggestion of another.

The principles for the treatment of alcoholic hallucination resolve themselves into those regulating the general management of inebriety. In some forms of visual hallucination the patient seems calmer if blindfolded or placed in a dark room, but in hallucinations so persistent as to be hypnagogic these measures are of little use. To immerse the feet frequently in hot water sometimes seems to have a subduing influence in acute maniacal conditions,—but how little derivative action can do for these troubles, was demonstrated by the case of a patient who came under our care for delirium tremens, and who, before we removed his property managed to secrete a small penknife under the mattress of the bed. With this he subsequently cut the facial artery and bled himself, *ad deliquum animi*. Nevertheless, his hallucinations persisted. That delirium tremens is in any way dependent upon cerebral congestion seems highly improbable. Strychnine is undoubtedly useful in stimulating general inhibitory function. Hyoseyamus and its derivatives we regard the most valuable hypnotic, especially in conditions approaching acute mania.

MANIA FOLLOWING ETHER.

BY W. A. GORTON, M. D.,

Superintendent of the Butler Hospital, Providence, R. I.

The occurrence of insanity as the result of indulgence in the use of narcotics and stimulants has long been recognized by writers upon the subjects of mental disease, and is a fact too well known to require extended comment. Inasmuch, however, as the cases recorded in the text books have been almost entirely those due to prolonged and excessive indulgence in narcotics or stimulants, it may not be uninteresting to call attention to cases which have appeared to be due to ether or chloroform administered but once and for purely surgical purposes. At the outset one is met by the difficulties attending the investigation of a class of cases whose early histories have not been carefully recorded, and in whom several causes may have been simultaneously operating to produce the mental disease. For example, the cases reported by surgeons, of insanity following operations, too frequently give only a detailed account of the operation and of the surgical sequelæ, to render it an easy matter to say whether the operation or the anæsthetic, or both, had been the actual cause of the mental affection in a given case. Cases do occur, however, in whom, so far as can be ascertained, the administration of an anæsthetic seems to have been, at least, the immediate or determining cause of the mental disorder. Two such cases have fallen under my observation, and to them I propose, briefly, to call your attention.

There was brought to the Danvers Lunatic Hospital, some years since, in a condition of maniacal excitement, a boy some fourteen or fifteen years of age, whose history was as follows: He was the son of an intemperate father and of a delicate mother, who died of phthisis some time before I saw the patient. The family history beyond what I have given, was unimportant. The patient had always been delicate, but not especially sickly; he had attended school and had made fairly good progress in his studies. He had been regarded by his family and by his teachers as of good mental capacity, and had shown to no one any peculiarity of disposition or any indication of intellectual deficiency. Some weeks previous to entering the hospital the patient had suffered from measles of a severe type, but from which he was reported to have made a good recovery. A few days before he came to the hospital he had

suffered severely from the pain of carious teeth, and under the influence of ether these teeth had been extracted. No untoward incident is reported to have attended the administration of the ether, or the operation of extraction, but the patient was tardy in regaining his consciousness, and, after the effects of the ether had apparently passed away "he did not appear like himself." He continued to act strangely, and shortly became actively maniacal. The case, after entering the hospital, went through a rather prolonged period of sub-acute mania, and at last became somewhat demented. During my professional connection with the patient, his friends repeatedly asked me if I thought the ether could have had anything to do with the production of his insanity; and I very positively assured them that the insanity must have been an independent affection. The case had almost passed from my recollection when the patient whose history I am about to report was brought to my notice.

Miss — was admitted to the Butler Hospital on January 29th, 1889, with the following history: Is single; twenty-two years of age; of Irish descent. A saleswoman by occupation. Her father, a man reported to have enjoyed good health previously, died of tetanus, the result of a severe injury. The mother, whose family history was, so far as could be learned, excellent, died at thirty-one, of cholera morbus. Both parents were temperate. The patient, as a young child, was of ordinarily good intelligence, but was rather wilful, which is ascribed by her sister to the fact that the death of their mother deprived the children of proper care during their earlier years. Her school life was uneventful; she made fair progress in her studies, enjoyed good bodily health, and her conduct in no way seemed different from that of other girls of her own age and social station. As a girl and young woman she exhibited a lively, frank and affectionate disposition, but is said by her sister to have been somewhat fretful and irritable at the menstrual periods. For about five years preceding her insanity she had been a successful saleswoman in a large dry goods establishment, and for two or three years she had devoted considerable time to the cultivation of her voice, and had attained fair success as a singer. This musical training seems to have been rather a relaxation than an additional burden of work, and never seemed to in any way be productive of injury to her. There was nothing in her conduct that aroused any suspicion as to her mental integrity until September, 1887, when she took ether in order to have a number of carious teeth removed. The administration was long

and tedious, and a large amount of ether was inhaled before the condition of anæsthesia was sufficiently marked to warrant the operation of extraction. The teeth were at last removed without accident, but the patient was two hours and upward in regaining her consciousness, and for several hours she was dull and rather indifferent. In a day or two she became able to return to her work, but almost at once her sister, with whom she had lived, began to notice a very marked change of disposition. The patient became irritable, unusually self-conscious, and at times exhibited decided mental exaltation. She became dramatic in her manner of speech, talked much of the stage, and in the store where she worked, through her frequent exhibitions of her elocutionary power, she became after a time known as the "Mary Anderson of the store." In excellent bodily health when she took the ether she very soon began to lose flesh, though her appetite continued to be good, and she made no complaint of physical suffering of any kind. So marked became this loss of flesh that the sister took her to a physician, by whom her chest was examined for evidences of pulmonary disease. Two careful physical examinations had a purely negative result. In general the patient slept well until shortly before Christmas, 1888, or nearly fourteen months from the time when she first began to exhibit mental disturbance. At this time her work became harder than usual, but she continued to perform it satisfactorily through the holiday season and through the early part of January, 1889; though her sister noticed that she was becoming increasingly irritable, more dramatic in speech and conduct, and that she appeared to be losing flesh more rapidly than ever. On January 19th, while in the store and waiting upon a customer she suddenly became excited, threw up her hands and began shouting in a highly hysterical manner. Upon being removed to an anteroom she shortly became more composed, though seemingly dazed and confused, and was taken to her home. Here she passed a restless night, becoming more and more maniacal. I saw her two days later in consultation at the house, when she was seen to be in a state of mild maniacal excitement, talking in an affected and dramatic manner, laughing hysterically, and showing an abnormal disregard for the proprieties of life. She, however, answered questions responsively when she would reply at all, and gave no positive evidence of delusions or of hallucinations.

When she entered the hospital she was in a state of active delirium, with elevated temperature, rapid pulse, dry tongue, sordes upon the lips and teeth, and other evidences of maniacal

suffered severely from the pain of carious teeth, and under the influence of ether these teeth had been extracted. No untoward incident is reported to have attended the administration of the ether, or the operation of extraction, but the patient was tardy in regaining his consciousness, and, after the effects of the ether had apparently passed away "he did not appear like himself." He continued to act strangely, and shortly became actively maniacal. The case, after entering the hospital, went through a rather prolonged period of sub-acute mania, and at last became somewhat demented. During my professional connection with the patient, his friends repeatedly asked me if I thought the ether could have had anything to do with the production of his insanity; and I very positively assured them that the insanity must have been an independent affection. The case had almost passed from my recollection when the patient whose history I am about to report was brought to my notice.

Miss — was admitted to the Butler Hospital on January 29th, 1889, with the following history: Is single; twenty-two years of age; of Irish descent. A saleswoman by occupation. Her father, a man reported to have enjoyed good health previously, died of tetanus, the result of a severe injury. The mother, whose family history was, so far as could be learned, excellent, died at thirty-one, of cholera morbus. Both parents were temperate. The patient, as a young child, was of ordinarily good intelligence, but was rather wilful, which is ascribed by her sister to the fact that the death of their mother deprived the children of proper care during their earlier years. Her school life was uneventful; she made fair progress in her studies, enjoyed good bodily health, and her conduct in no way seemed different from that of other girls of her own age and social station. As a girl and young woman she exhibited a lively, frank and affectionate disposition, but is said by her sister to have been somewhat fretful and irritable at the menstrual periods. For about five years preceding her insanity she had been a successful saleswoman in a large dry goods establishment, and for two or three years she had devoted considerable time to the cultivation of her voice, and had attained fair success as a singer. This musical training seems to have been rather a relaxation than an additional burden of work, and never seemed to in any way be productive of injury to her. There was nothing in her conduct that aroused any suspicion as to her mental integrity until September, 1887, when she took ether in order to have a number of carious teeth removed. The administration was long

and tedious, and a large amount of ether was inhaled before the condition of anæsthesia was sufficiently marked to warrant the operation of extraction. The teeth were at last removed without accident, but the patient was two hours and upward in regaining her consciousness, and for several hours she was dull and rather indifferent. In a day or two she became able to return to her work, but almost at once her sister, with whom she had lived, began to notice a very marked change of disposition. The patient became irritable, unusually self-conscious, and at times exhibited decided mental exaltation. She became dramatic in her manner of speech, talked much of the stage, and in the store where she worked, through her frequent exhibitions of her elocutionary power, she became after a time known as the "Mary Anderson of the store." In excellent bodily health when she took the ether she very soon began to lose flesh, though her appetite continued to be good, and she made no complaint of physical suffering of any kind. So marked became this loss of flesh that the sister took her to a physician, by whom her chest was examined for evidences of pulmonary disease. Two careful physical examinations had a purely negative result. In general the patient slept well until shortly before Christmas, 1888, or nearly fourteen months from the time when she first began to exhibit mental disturbance. At this time her work became harder than usual, but she continued to perform it satisfactorily through the holiday season and through the early part of January, 1889; though her sister noticed that she was becoming increasingly irritable, more dramatic in speech and conduct, and that she appeared to be losing flesh more rapidly than ever. On January 19th, while in the store and waiting upon a customer she suddenly became excited, threw up her hands and began shouting in a highly hysterical manner. Upon being removed to an anteroom she shortly became more composed, though seemingly dazed and confused, and was taken to her home. Here she passed a restless night, becoming more and more maniacal. I saw her two days later in consultation at the house, when she was seen to be in a state of mild maniacal excitement, talking in an affected and dramatic manner, laughing hysterically, and showing an abnormal disregard for the proprieties of life. She, however, answered questions responsively when she would reply at all, and gave no positive evidence of delusions or of hallucinations.

When she entered the hospital she was in a state of active delirium, with elevated temperature, rapid pulse, dry tongue, sordes upon the lips and teeth, and other evidences of maniacal

exhaustion. She was actively delirious and extremely feeble for a month, requiring vigilant attention to feeding and to keeping her in bed. After this she slowly improved, and by another month was able to sit up. She now began, having been previously almost completely reticent, to manifest delusions of persecution, associated with those of grandeur. She called herself a queen, said she had been sent to the hospital by her enemies, who intended that she should be poisoned by the "doctors and nurses." Thought that her superior knowledge had enabled her to thwart all the injurious plots against her, but was at times irritable and abusive in language, at times reticent, at times laughed and screamed inarticulately in a typically hysterical way. Hallucinations of hearing were suspected, but no positive evidence of them could be discovered. Improvement has been continuous, and the patient now shows no evidence of delusions or hallucinations, and is quiet, cheerful, good tempered and rational and sensible in speech and conduct. Her physical improvement has been remarkable, her weight is greater than for two years, and her color and general appearance is that of a person in perfect bodily health. She sleeps well, and every bodily function appears to be normally performed. The patient speaks with apparent frankness of her condition before she took ether, and of the condition following the extraction of her teeth. She says she never felt quite herself after she passed from the influence of the anæsthetic; that she, to use her own words, "lost her natural feeling, her head felt heavy and dull, and she had a queer feeling all over almost all the time." "Things did not look exactly as they used to do; I could not do work as easily as I could before." There was pretty constantly a vaguely restless feeling, uneasiness at night, and a lack of refreshment from sleep. No delusions or hallucinations are admitted during this period. She was conscious of the fact that she was not well, but does not seem to have had any feeling of depression or alarm concerning her condition. From her own statements and from the description given by her sister, a young lady of more than ordinary ability and accuracy of observation, it would seem that the patient was in that state of simple maniacal exaltation that so often precedes by a considerable period the onset of the more violent and typical symptoms of acute mania almost from the time when ether was administered to her until she actually broke down on January 19th, a period of fourteen or fifteen months.

As we examine these cases in detail, the first, it seems to me, is

much more doubtful in its origin than the second, as the heredity was bad and the patient before taking ether had but just recovered from a pretty severe attack of an infectious disease, which alone has been known to be the exciting cause of serious mental trouble. Still, as he had made an apparently good recovery from this disease, and as an actual interval had elapsed before he took the anæsthetic, with no symptoms of insanity during it, the probability would seem to be that the anæsthetic was at least a powerful contributory cause, if not the determining one.

The second case would appear to be as clearly due to ether as any hitherto reported. It is true that the removal of a large number of teeth constitutes a traumatism of considerable severity, involving as it does extensive injury to the fifth nerve and to the alveolar process and the soft parts, but as there was no special hemorrhage during the operation, no apparent shock following it, and no subsequent pain, chill or elevation of temperature, one would feel justified in excluding the ordinary surgical conditions, which, in other cases, in operations upon other portions of the body have been followed by insanity. So far as the family history could be traced, as before stated, it was wholly negative. It should not be overlooked that the previous history of the case, together with certain of the symptoms manifested, notably the delusions of grandeur and of suspicion, might indicate that this patient is a paranoiac, and indeed only prolonged observation will enable one to exclude this condition, but certainly at present the indications are decidedly against paranoia.

So far as I am informed but few cases of the character here reported have been described by writers upon mental disease. The scarcity of literature upon the subject goes far to show that such cases are uncommon, or at least to indicate, that, if frequently observed, they have been regarded as cases of ordinary insanity, not connected with the administration of ether or of other anæsthetics. In the *British and Foreign Medical Journal* for 1887, may be found an article by Savage, of London, describing cases of insanity following the surgical administration of ether and chloroform, and in the discussion which followed Dr. D. H. Tuke described a case produced by the inhalation of nitrous oxide. Dr. Savage reported some interesting cases of puerperal insanity following the use of chloroform during labor, in whom subsequent deliveries without anæsthetics had been followed by no untoward mental symptoms. Dr. Francis J. Shepard, of Montreal, Canada, in an article in the *American Journal of the Medical Sciences* for December, 1888, describes certain cases of insanity following sur-

exhaustion. She was actively delirious and extremely feeble for a month, requiring vigilant attention to feeding and to keeping her in bed. After this she slowly improved, and by another month was able to sit up. She now began, having been previously almost completely reticent, to manifest delusions of persecution, associated with those of grandeur. She called herself a queen, said she had been sent to the hospital by her enemies, who intended that she should be poisoned by the "doctors and nurses." Thought that her superior knowledge had enabled her to thwart all the injurious plots against her, but was at times irritable and abusive in language, at times reticent, at times laughed and screamed inarticulately in a typically hysterical way. Hallucinations of hearing were suspected, but no positive evidence of them could be discovered. Improvement has been continuous, and the patient now shows no evidence of delusions or hallucinations, and is quiet, cheerful, good tempered and rational and sensible in speech and conduct. Her physical improvement has been remarkable, her weight is greater than for two years, and her color and general appearance is that of a person in perfect bodily health. She sleeps well, and every bodily function appears to be normally performed. The patient speaks with apparent frankness of her condition before she took ether, and of the condition following the extraction of her teeth. She says she never felt quite herself after she passed from the influence of the anæsthetic; that she, to use her own words, "lost her natural feeling, her head felt heavy and dull, and she had a queer feeling all over almost all the time." "Things did not look exactly as they used to do; I could not do work as easily as I could before." There was pretty constantly a vaguely restless feeling, uneasiness at night, and a lack of refreshment from sleep. No delusions or hallucinations are admitted during this period. She was conscious of the fact that she was not well, but does not seem to have had any feeling of depression or alarm concerning her condition. From her own statements and from the description given by her sister, a young lady of more than ordinary ability and accuracy of observation, it would seem that the patient was in that state of simple maniacal exaltation that so often precedes by a considerable period the onset of the more violent and typical symptoms of acute mania almost from the time when ether was administered to her until she actually broke down on January 19th, a period of fourteen or fifteen months.

As we examine these cases in detail, the first, it seems to me, is

much more doubtful in its origin than the second, as the heredity was bad and the patient before taking ether had but just recovered from a pretty severe attack of an infectious disease, which alone has been known to be the exciting cause of serious mental trouble. Still, as he had made an apparently good recovery from this disease, and as an actual interval had elapsed before he took the anæsthetic, with no symptoms of insanity during it, the probability would seem to be that the anæsthetic was at least a powerful contributory cause, if not the determining one.

The second case would appear to be as clearly due to ether as any hitherto reported. It is true that the removal of a large number of teeth constitutes a traumatism of considerable severity, involving as it does extensive injury to the fifth nerve and to the alveolar process and the soft parts, but as there was no special hemorrhage during the operation, no apparent shock following it, and no subsequent pain, chill or elevation of temperature, one would feel justified in excluding the ordinary surgical conditions, which, in other cases, in operations upon other portions of the body have been followed by insanity. So far as the family history could be traced, as before stated, it was wholly negative. It should not be overlooked that the previous history of the case, together with certain of the symptoms manifested, notably the delusions of grandeur and of suspicion, might indicate that this patient is a paranoiac, and indeed only prolonged observation will enable one to exclude this condition, but certainly at present the indications are decidedly against paranoia.

So far as I am informed but few cases of the character here reported have been described by writers upon mental disease. The scarcity of literature upon the subject goes far to show that such cases are uncommon, or at least to indicate, that, if frequently observed, they have been regarded as cases of ordinary insanity, not connected with the administration of ether or of other anæsthetics. In the *British and Foreign Medical Journal* for 1887, may be found an article by Savage, of London, describing cases of insanity following the surgical administration of ether and chloroform, and in the discussion which followed Dr. D. H. Tuke described a case produced by the inhalation of nitrous oxide. Dr. Savage reported some interesting cases of puerperal insanity following the use of chloroform during labor, in whom subsequent deliveries without anæsthetics had been followed by no untoward mental symptoms. Dr. Francis J. Shepard, of Montreal, Canada, in an article in the *American Journal of the Medical Sciences* for December, 1888, describes certain cases of insanity following sur-

gical operations, but in only one case was the anæsthetic anything more than a contributory cause of the mental disorder. Prof. T. G. Thomas, of New York, in the *New York Medical Record* for April 20th, 1889, gives the histories of several instances of melancholia following gynecological operations, but his cases were complicated by bad previous histories or by severe surgical injuries to such an extent as to render them unavailable for accurate comparison here. During the discussion of the paper by Dr. Thomas it was remarked that the fear of the operation may have predisposed the patients to mental disturbance, and that under such circumstances both the influence of the operation and of the anæsthetic might have been exaggerated. In the cases forming the subject of this paper, the element of fear as to the consequences of the operation to be performed may be wholly eliminated. During the discussion of a thoughtful and important paper by Dr. George F. Shrady, editor of the *New York Medical Record*, an account of which was published in that journal for February 23d, 1889, among the dangers attendant upon or attaching to the administration of ether, the occurrence of prolonged delirium was mentioned by several surgeons of experience, though few of the cases to which they alluded were of more than a few days' duration. Dr. Wm. M. Polk remarked that in a case with bad heredity and with a bad previous personal history, he should hesitate to perform any gynecological operation of a serious character, or to administer anæsthetics to such a person. Dr. C. L. Dana stated that several of his neurasthenic patients had dated the beginning of their nervous troubles to the previous administration of ether. The text books upon materia medica are as barren of reference as the text books upon mental disease. Yet all speak indefinitely of vague nervous disorders which have been known to follow the surgical administration of ether and chloroform. In nearly all the cases elsewhere reported an interval between the inhalation of the drug and the development of the symptoms of nervous derangement, has been noted, and by some observers this interval is considered to be quite distinctive. In the two cases here reported this feature is certainly not prominent. The writer has no intention of imposing a new form of insanity upon our already heavy-laden system of classification, but desires only to draw attention to the fact, that in certain susceptible persons, the administration of an anæsthetic may cause an attack of insanity; and to urge that the after-effects of such an agent shall be carefully noted, whenever administered for any purpose, in order that the patient may, if possible, be spared the shock and the grave risk that accompany every form of mental disease, in whatever way it may have been induced.

THE MECHANISM OF INSANITY.*

BY EDWARD COWLES, M. D.,

Superintendent of the McLean Asylum, Somerville, Mass.

I.—THE NORMAL MECHANISM OF MIND AND BODY.

The remarkable progress in neurology, that is now, through discoveries in cerebral localization, extending the domain of surgery into a new field, has a special significance for the alienist. It shows the value of the natural method of investigation; by the analysis and comparison of a vast number of facts their relations to each other were ascertained and we were led back by induction to the general truth of localization of function in the brain. Certain facts of histology, physiology and pathology of the nervous and muscular mechanism being determined, the presence or impairment of its powers can be tested; by penetrating inward along the sensory and motor tracts the cerebral centres of their action are being localized.

In the study of mind the same inductive method must be pursued if mental function is to be localized. But if the limits of our knowledge of cerebral histology and pathology, and therefore of the mental mechanism as to its physical basis, are soon reached, investigation may still be pursued along the lines of function. The laws of the action of the mental powers, and the sequences of their activities, may be studied inductively in relation to what is becoming known of the cerebral organism. If it is as yet impossible to declare, as a scientific truth, that intelligence and volition arise in the cerebral hemispheres alone, there is reason to believe that, in man at least, only the activities of the cerebral cortex can affect consciousness. All sensory and motor tracts, not purely reflex, begin and end here.

Investigation of mental localization is on the right path when it discovers such sensory centres as those of the special senses; and it enables us to infer logically that beyond them are closely related "centres" of conscious intelligence, to which those of the special senses serve as localities of intellectual sense-perception. The activity of cortical centres of the special senses may be conceived

* Read at the forty-third annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, held at Newport, R. I., June 18-20, 1889. [Revised.]

as leaving in them something analogous to a "trace" in the organism; and as afterwards being reproduced through an organic memory of the former activity. Special sensory memories may be obliterated by disease or injury of such centres,—a visual, auditory or tactile memory may be cut out of its connection with consciousness and there will be a psychic blindness or deafness, and the like. Upon the motor side, in like manner, may be localized cortical motor centres such as those in direct relation to "word-uttering" and "word-writing memories." Thus we begin to approach, at least, the localization of two divisions of the mental faculties distinctly intellectual,—sense perception and memory; the recognition of association fibres furnishes the mechanism for the co-ordination of widely separated cortical centres that lie in the paths leading to conscious perception and memory, and to the higher centres of ideation.

Having proceeded so far inward along the sensory and motor paths these here become obscure in the attempt to trace them toward the seat of conscious intelligence. But conscious intelligence itself may be interrogated, and the answers reveal it as looking outward through its intellectual faculties of sense-perception and memory, thereby receiving and holding impressions from the external world. Conscious memory is revealed as a complex mental activity; it is composed of several memories, and its stored up images are in terms of the special senses,—as visual, auditory or tactile sense-impressions, or those of the muscular sense. Difference of endowment or experience causes individual differences in the degree of activity of these several memories; this is emphasized in their absence, deficiency or exaggeration in idiots, or in their suspension or exaltation in hysterics. For this reason Ribot thinks that the methodical study of the limited partial memories, as observed in idiots, would aid in determining the anatomical and physiological conditions of memory. In these and the hypnotic states we find also the phenomena of the permanent or temporary cutting out of any one or all of the purely intellectual powers of sense-perception, together with amnesia of all the memory images of the deficient or suspended special sense. It is as if, in some hypnotic cases for example, there had never been any consciousness of images stored in terms of muscular sense or of visual, or auditory sensations, as the case might be. Thus it is that by hypnotic suggestion, making its impressions through the normal afferent paths directly upon conscious intelligence, the intellectual powers of sense perception and memory may be played

upon, suspended or restored, in part or all of them. From within outward, then, the paths of the mental activities of the several memories and sense-perceptions are in the direction of juncture with the points of sensory and motor localization where we are stayed in pursuing the paths from without inward. For the latter the difference is that there is, so far, a demonstrable corresponding physical basis. But all these functions may even find their close relations with conscious intelligence in the same cortical areas, if Munk is right in saying that "Intelligence is located everywhere in the cerebral cortex and nowhere in particular." Whether or not we can yet accept as valid such interpretations of the phenomena on the frontiers of our field of investigation, it is significant of great progress that the data of observation now forthcoming are so abundant, and begin to present such newness of aspect in the clarifying light of modern comparative methods of study, as to furnish good material for the legitimate framing of the provisional hypotheses that are the very pioneers of scientific inquiry.

The accepted findings of investigation in cerebral localization are mainly to the credit of the neurologist; they are the fruits of comparative study in the physiological laboratory, and of the phenomena of disease in the human brain. But that which essentially constitutes insanity involves a higher order of mental functions than sensory and motor localizations and even than sense-perception and memory; these man has in common with the lower animals. The alienist can study the higher functions of conception, judgment, and reason, in their manifestations, normal or disordered, even though he is limited to mental phenomena and symptoms in his field of investigation, and must as yet pursue inquiry and comparison with little aid from cerebral histology and pathology. Still the mental powers have definite laws of their activities and sequences. This means simply the study of mental physiology and pathology, and even if yet so largely limited to the study of the phenomena of function there is no richer field for diligent investigation. We have a right to assume, hypothetically, that every manifestation of mind is correlated to a definite mode and sphere of brain activity. To know the laws of this correlation is worth the seeking; it involves equally a study of brain tissue and purely mental phenomena,—but the latter may, by themselves, be analyzed and classified, both by introspection and objective observation. The poverty of our text-books in regard to mental physiology is well known; here is an opprobrium in the teaching of psychiatry. The treatises on insanity generally fail to

lay down the facts of the normal functions as is done in works in other departments of medicine.

The purpose of this paper is to present a study in outline of the salient phenomena of mind,—their relation to some of the facts of the nervous and mental mechanism with as little of theory as possible; and to set up a normal standard, as near as may be, of the action of the mental powers, localizing them, as it were, in the definite order of the sequences in which they are uniformly manifested. Having the normal basis thus analyzed in terms of function, there may be aligned with its array of elements the observed phenomena of mental disorder as presented in certain groups of typical cases of the common forms of insanity in which the mental manifestations appear in a corresponding very regular order. Thus it may be possible to "localize" the precise points in the mental mechanism where the disorder exists; and there may be thus conceived a mechanism of insanity. The intention is simply to make a comparative study of normal and pathological manifestations of mind. If it is necessary to face the fact that there is a limitation of psychiatry to the study of symptoms, let inquiry follow the lines of symptomatology and see what can be made of a study of the easily observed manifestations of mental function quite independent of the fascinating theories of the molecular reactions of the nervous organism, and their relation to the theories of the evolution and dissolution of the nervous system. However true these theories may be it is good to study well the clinical facts, and reduce their data to a systematic order, for in a comparison of such data with theoretical hypotheses these must fit the facts. It is above all things desirable to avoid any exclusivism of theory. In so complex a mechanism, capable of manifesting powers of so diverse and paradoxical a character, hypotheses apparently conflicting may contain much truth at the same time. The endeavor, therefore, will be to confine this study to the generally accepted data of experiment and observation of the phenomena of mind and body, with little of conjecture as to molecular activities of the nervous elements.

REFLEX ACTION.

The modern exact science of biology leads us to regard the animal organism as an isolated mechanism, acted upon by its environment and by it reacted upon in its turn.* Underlying all these phenomena is reflex action of the nervous system, and

*Sedgwick. *Art. Reflex Actions. Reference Hand Book of Med. Sciences.*

physiologists generally agree to consider every action as aroused by some definite cause or stimulus. Stimuli proceeding directly from the environment and provoking reaction upon it, plainly produce reflex actions. Stimuli arising within the organism, (it may be in nerve-centres), and acting upon nerve-centres other than their own, also clearly produce reflex actions. Thus food in the mouth and stomach stimulates a reaction through nervous centres not only producing reflex action of the muscles of the digestive apparatus but also exciting glandular action in the secretion of saliva, gastric juice, etc. Mental actions may be largely reflex, as the resultants of immediately received impressions, or of earlier ones acquired or inherited. Such impressions are elaborated, modified and combined in all our actions. Under this view nearly all nervous actions are reflex, but some remain yet unexplained and are said to be automatic. These are defined to be such actions as are produced by stimuli arising within nerve-centres and acting directly upon and through the centres in which they arise, for example the actions of the heart and the lungs; but even these may be questioned. On the basis of these laws, governing the activities of the organic mechanism, the phenomena of its reactions, both mental and physical, may be studied under ordinary conditions, or developed and tested by the experimental application of natural or artificial stimulation. It is in order to begin with an examination of the simplest manifestations of the mechanism for an answer to the first inquiry as to what the nervous system can do.

The "nerve-muscle preparation," or "machine" as figured in modern text-books on physiology needs only the briefest description here; it serves to demonstrate some of the most important fundamental laws of nervous reaction.* The leg-muscle of a frog freshly dissected out with the attached sciatic nerve, and kept alive for some time in a moist chamber is fixed with its end attached to a lever in a simple mechanical contrivance with a marking needle and a revolving drum covered with smoked paper to receive the markings traced upon it recording the time and amount of the muscular contractions that are caused by stimulating the nerve. When an electrical current is used to stimulate the nerve and the "muscle-curve" is traced upon the drum, the tracings may be repeated many times, and a comparison be made between those resulting from different kinds and degrees of stimulation. When the stimulus is applied to the nerve near the muscle, and again at a definite distance from it, the time of the

* Ladd. *Elements of Physiological Psychology*, p. 104.

passing of the nervous impulses through the nerve-stretch may be measured. The speed of conduction varies with the conditions; in the motor nerves of man the rate can be made, by changes of temperature, to vary from about 98 feet to 295 feet per second. The element of muscle contraction may be still further ignored and the phenomena of nerve excitation and conduction isolated and studied. This mechanism demonstrates the fundamental attribute of *physical feeling* in the nerves, manifested by *excitability* as a primary power or "faculty," and to this is added *conductivity*. These powers depend upon the maintenance of proper conditions of which vitality, and recovery from exhaustion from previous stimulation, are two of the most important. The stimulus being the same the excitability varies with different conditions such as temperature, moisture, etc. The phenomena may vary according to the character, amount, and method of application of the stimuli, whether mechanical, chemical, thermal or electrical; but whatever the causes or conditions, if any activity of the "nerve-muscle machine" is developed it is always the same manifestation of the powers of excitability and conductivity.

The preparation which may be called the "nerve-cord-muscle machine," as illustrated by the "brainless frog," is most fruitful of results when subjected to experimentation. It includes sensory nerves, the spinal cord, and motor nerves, in the paths of nervous activity, and serves to demonstrate the laws of reflex action by the same experimental processes as those applied to the "nerve-muscle machine," the same regard being had to proper conditions. The speed of conduction is much slower in the cord than in the peripheral nerves. They are calculated by Exner as not more than $26\frac{1}{4}$ feet per second for sensory impulses and from 36 to 49 feet for motor impulses in the cord. The delay in conduction through the reflex centres in the cord corresponds to the necessity for a process of "transformation" from sensory to motor centres. A process of "dispersion" occurs here also when impulses are distributed in different directions in the cord. A stimulus being applied to the skin for example, there is sensory conduction, transformation in the cord, and motor conduction to the muscles manifesting the reflex action. In the "nerve-cord-muscle machine" there is thus added to the essential powers, or faculties, of excitability and conductivity the processes of transformation and dispersion. Whatever of specific energy may be ascribed to the fundamental elements of nerves and nerve-cells, in these processes, it is to be noted that there is always excitation of, and conduction through, these elements.

The next higher stage of experimentation may be made upon the whole organism including the brain in the paths of reflex action; and this might be said to constitute the "nerve-brain-mind-muscle machine." The general relation of the central nervous activities to the physical basis, in these reflex processes, are well illustrated, for the present purpose, by Luys' diagram* of the sensori-motor processes of cerebral activity. (Fig. 1.) Without considering the

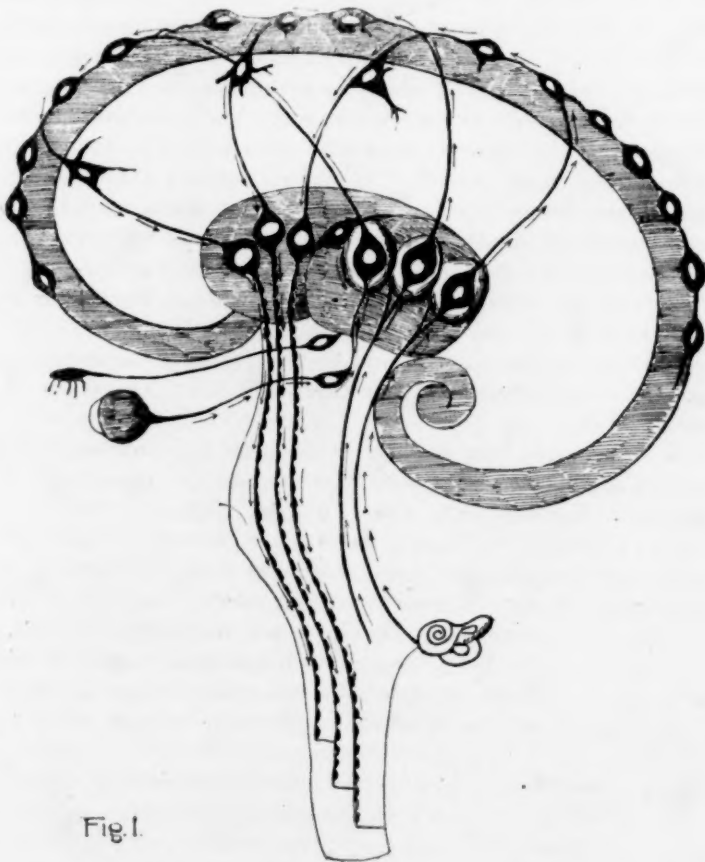


Fig. 1.

conjectural localizations, by Luys, of the paths of sensory and motor impulses in the optic thalami and striate bodies, this diagram serves to show the relative places in the mechanism of the

* Luys. *The Brain and its Functions*, p. 60.

sensory and motor termini in the cortex. If now a sensory end-organ be stimulated and the stimulus be strong enough to send an impulse along the sensory nerve to a sensory centre in the brain-cortex there is then a transformation process as in the cord, and the impulse being passed over to the cortical motor centre, the reflex action is continued to its expression in peripheral muscular action. The utterance of a word, for example, stimulating the end-organ of hearing in the mechanism experimented upon, brings from it the utterance of responsive words by its organ of speech; the transformation process introduces here the mental function, and the logical place of mind is between the sensory and motor centres in the cortex as shown in the diagram. The "nerve-brain-mind-muscle machine" has still the essentials of a mechanism; let it be stimulated through any one of the special senses and the responsive actions are always true to the laws of the mechanism, and however varied, are always what they might be expected to be within normal limits, however wide. Incorrect responses always suggest defect in some element of the reflex processes. It still remains true of this most complex mechanism that, whatever forms of specific energy may be ascribed to its several elements, they all possess the fundamental common functions of *excitability* and *conductivity*.

In the experiments showing the time of reflex action through sensory and motor nerves and the cord alone it was seen that the reaction-time was made slower by the transformation in the cord. Then the cord could be depended upon to yield definite reflex movements, with great regularity, in response to the application of a given amount of stimulus to a given locality. But when the action of the brain is not eliminated, the cord, in normal conditions being under the influence of it, has its reflex activities profoundly modified; and the "simple reaction time" including the mental element is greatly varied by inhibitory influences which make it different for every individual and under different conditions, even when all the time-consuming elements, which tend to complicate the processes, have been as far as possible eliminated.

In the first order of these experiments there was demonstrated the powers of excitability and conductivity in a stretch of motor nerves. In the second order of experiments there was added to the path of nervous action, sensory nerves and end-organs and the nerve-cells forming the reflex centre in the cord. There were still the powers of excitability and conductivity in all these

elements, and the added processes in the cord of transformation and dispersion. In experiments of the third order, including the brain and its mental functions in the reflex path, there are found no new elements other than nerve-fibres and cells, and these still have the fundamental powers of excitability and conductivity. There are processes of transformation and dispersion also in these central combinations of the elements; and it is in the transformation process that the new and special mental functions appear. In these experiments is seen the manifestation of the law of specific energy, by which every nerve-fibre, every element of an end-organ or of a central organ, may be said to have a specific function, and to discharge that function in the exercise of a specific energy. While we can only conjecture how far the capacity for this specific energy is dependent upon the specific molecular structure of the elementary parts of the nervous system, there can be no doubt about its dependence upon the *connections* in which the elementary parts stand with each other. Different combinations of the elementary parts, forming composite parts or organs, have different values and functions in the general economy of the nervous system.* It seems obvious that the differentiation of functions, as expressed in the numerous states of consciousness, results from combinations of a comparatively few kinds of elements, subjected to stimulation through the connections of minutely subdivided end-organs of sense with the corresponding regions of the central organs.

To sum up these conceptions of the physical basis of the mental mechanism, we must regard the cerebral cortex in man as the most highly organized of animal tissues as to its molecular structure and the specialization of function. This is not inconsistent with the conception that, as stated by Meynert, specific energies depend altogether upon the peculiarities of the sensory end-organs and sensitiveness is the only specific property of brain-cells, where it is converted into actual sensation.† That only this single functional energy, sensitiveness, is inherent in the brain-cell, is conceivable,—it implies both physical feeling and excitability. The differentiation of function in specific areas of the cortex are thus conceived as being localizations of specific energies, not necessarily displayed at the very outset, but due to the influences of the laws by which they are governed, and of the laws of habit, in the activities that are developed in the connec-

* Ladd. *Phys. Psychol.*, pp. 300, 353.

† Meynert. *Diseases of the Fore-Brain*, p. 139.

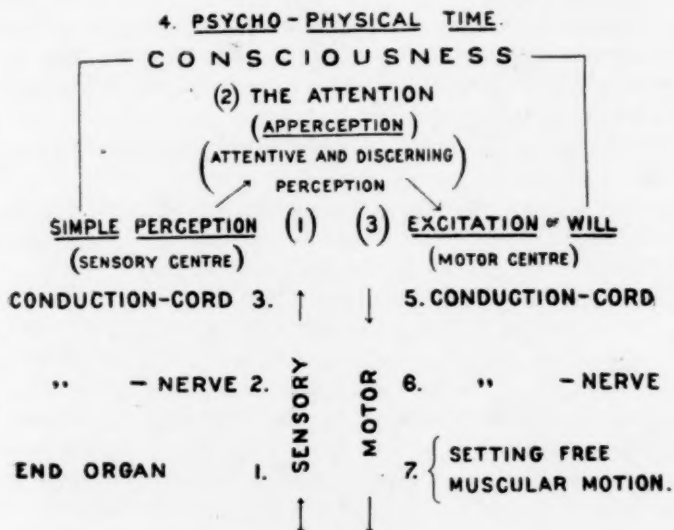
tions between the special sense organs and the cortical centres. While the several sense-perceptions and memories may be quite definitely localized it may still be conceived as consistent that conscious intelligence is joined with them everywhere in the cortex and not necessarily relegated entirely to frontal convolutions. These conceptions of the "wheel-work" of the mechanism, and the relation to it of the mental functions, must still be regarded as largely hypothetical; but this need not embarrass an inquiry the purpose of which is to study mental functions quite independent of their organic basis. This inquiry has now been led to the point of entering upon the further analysis of the mental element in the path of reflex-action; a time relation is demonstrated, and the study of the reaction-time furnishes a clew to the labyrinth that is to be explored.

The reaction-time has been analyzed by Exner into seven elements:* (1) An action of the stimulus on the end-organ of sense preparatory to excitation of the sensory nerve; (2) centripetal conduction in this nerve; (3) centripetal conduction in the spinal cord or lower parts of the brain; (4) transformation of the sensory into the motor impulse; (5) centrifugal conduction of the impulse in the spinal cord; (6) centrifugal conduction in the motor nerve; (7) setting-free of the muscular motion. The fourth of these elements is the one now to be examined, and it may be called the "psycho-physical" time. It has been seen that it is theoretically possible to ascertain the other six elements; by subtracting them from the entire reaction-time the remainder would be the interval occupied by the central cerebral processes in No. 4 of the series. Exner's calculation allows 0.08+seconds as the time within the cerebral centres in transforming the sensory into motor impulses, where the whole reaction-time from hand to hand is 0.13+seconds. These results, though only approximate, serve to show the relations of these elements. We may now substitute for the fourth element, "psycho-physical time," Wundt's analysis of it into three processes, following the analogy of the field of consciousness to the retinal field of vision: (1) Entrance into the visual *field* of consciousness, or simple perception; (2) entrance into the *point* of clear vision with attention, or apperception (attentive and discerning perception); (3) the excitation of the will, which sets free in the central organ the registering motion. Time is required for each of these three processes thus described in terms of sight, and there is no good reason to suppose that the

*Ladd. *Phys. Psychol.*, p. 470-1.

mind occupies time for its own processes, separate from and thrown in, as it were, between these physiological processes.

These two analyses of Exner and Wundt may be combined into a diagrammatic form to show the relations between these elements. (Fig. 2). It illustrates the probable fact that all changes



of consciousness require time in order to define themselves with their maximum of clearness and intensity; and that the mental forms of perception, apperception, and will, are exactly simultaneous with corresponding cerebral processes. The first problem of psychometry is to determine the simple reaction-time, and from it to find the three factors of psycho-physical time: perception-time, apperception-time (or discernment-time), and will-time. In respect to mental function alone, we now have it clearly analyzed into three elements always acting in a regular and inevitable sequence, and in accordance with the laws of excitability and conductivity.

It was seen that simple reaction-time was ascertained by the elimination of all the inhibitory influences possible in order to give the path of reflex-action the utmost directness. If however, instead of a simple reaction from hand to hand, it be required, for example, that a choice shall be made of one of two electrical but-

tons to be touched, an increment of time will be consumed, for the intellectual act of choosing. This being extended to the more complex processes of choosing, judging, reasoning, and like inhibiting actions, introduces "association-time" which may be prolonged indefinitely. But there is always to be observed, under proper conditions for comparative study, a true correlation between the purely mental processes and the time element; and according to the complexity of these we must conceive a corresponding elaboration of the "wheel-work" of the mechanism in respect to the combinations of molecular elements producing co-ordinations of activities that acquire stability by habit.

The foregoing discussion is meant to show the nature of the evidence, from the accepted data of experiment and observation, as to how far it can be demonstrated that the powers or "faculties" of the nervous system are in exact correlation with the organic mechanism. Of the strictly mental activities it is shown that three of the faculties of mind-perception, the action of the attention in apperception, and of the motor excitation in "will-time,"—are susceptible of being studied, objectively, by observation and experiment, as to the uniform sequence of their action, and by approximate measurement as to the time relation. Conscious intelligence has now been introduced, presenting consciousness as a prerequisite faculty of mind; the powers so far named are represented as acting in the "field of consciousness." The references to the organic mechanism are made helpful so far as its data are acceptable. The main purpose is to make a simple analysis of the phenomena of conscious mentation, to show that the order of the activities or faculties, which produce these phenomena, is easily to be observed, and to set up a normal standard which may serve for the purposes of comparison. Now that the inquiry into the transformation processes has passed beyond the limits of "simple reaction-time" into "association-time," the study of the correlations of mental and physical activities renders little aid; but experiment has rendered service in defining and confirming the laws of association. A further analysis of the reactions that occur in the interval between sensory "simple perception," and motor "excitation of the will," (see Fig. 2,) must be made both by introspection and by an inductive study of the products of the mechanism in their expression by speech, conduct, etc.

THE MENTAL MECHANISM.

The necessity now comes of adopting some brief and generally accepted analysis of the mental faculties. The desire is to make as simple a characterization of these as possible; to raise no questions as to the nature of consciousness, mental feeling, conscience, the will, and the like; and to leave everyone free to vary and fill in the outline as he pleases. The purpose here is a practical one. The following table will serve the present purpose. This classification is chosen as representing that of introspective psychology. It is not intended to adopt the "faculty theory," or any theory, and the reader may, at discretion, use the terms powers, functions, or forms of consciousness.

MENTAL FACULTIES.

FIRST.

*Cognitive or Intellectual.*1. SIMPLE COGNITIVE OR PRESENT-
ATIVE.

- (1.) Self-consciousness.
- (2.) Sense-perception.

2. REPRODUCTIVE OR REPRESENTA-
TIVE.

- (1.) Memory,—retaining, recalling,
and association of ideas.
- (2.) Composition.
- (3.) Symbolic power.

3. COMPARATIVE—(discovering rela-
tions).

- (1.) Conceiving.
- (2.) Judging.
- (3.) Reasoning.

(The cognitive faculties give us knowl-
edge and ideas.)

SECOND.

Motive or Affective.

4. EMOTIONS, FEELINGS, INSTINCTS.

5. CONSCIENCE OR MORAL FACULTY.

(The motive faculties stir up feeling
and prompt to action.)

THIRD.

*The Will.*6. WILLING AND ACTING.
POWER OF CHOICE.

The attention is a general power of the mind and accompanies all other mental activity.

This analysis takes as its basis the three general divisions of the mental faculties into knowing, feeling and willing. The knowing faculties are divided into three classes; the first implies consciousness, and deals with new impressions or ideas; the second with the recalling of stored up ideas formerly held in consciousness; the third with forming abstract notions, comparing and making

over ideas new and old into new conclusions. It will be more convenient to reserve further characterizations to be made in connection with a description of the localization of these faculties in the "Nervous and Mental Mechanism," as set forth in the diagram, Fig. 3. This is designed to show, in a broad way, the relations of mind and body, and of mind through the medium of the body, to the environment. It will be seen that it includes all the elements of the reactions represented in Fig. 2, viz.: special end-organs, sensory tract, simple perception, apperception, excitation of will, motor tract, and setting free of muscular motion. These are all conceived to be in the paths devoted to conscious physical feeling, which with excitability constitute the inherent functional energy of sensitiveness (the first being relatively a passive, and the second a more active sensitiveness); conductivity is shown by the inner lines and arrows. The dotted arrows, and lines and spaces enclosed within them, may be ignored for the present, as relating to subconscious activities. The diagram represents also the "nerve-muscle machine" in the parts designated, "motor-nerves" and "motor organs"; and the "nerve-cord-muscle machine" is represented by all those parts outside of the rectangle enclosing "Mind," and its divisions. The mental transformation processes are supposed to occur in this latter region so enclosed. It is as if we could look into the region of mind, and it being divided by a section through it, we see the field of consciousness, (that of subconsciousness being beyond the view); and in the soil of the field of consciousness are the powers from which spring the activities nascent there, ready to be active in due order, and each in its proper place.

A hypothetical localization is assumed for the intellectual, emotional and volitional centres as representing the relations of the definite modes and spheres of these activities in the cerebral mechanism; and upon this basis the characterization of the few classes into which the faculties are here grouped may be undertaken.

CONSCIOUSNESS.

The order of this inquiry led to the finding of sensitiveness as inherent in cortical cells where it is converted into actual sensation. There are "simple sensations"—the units of sensory impulses—that cannot be discriminated in the complexity of the inflow from their various and highly specialized sources in the end-organs of sense; they come in terms of visual and tactile sense, and the like,

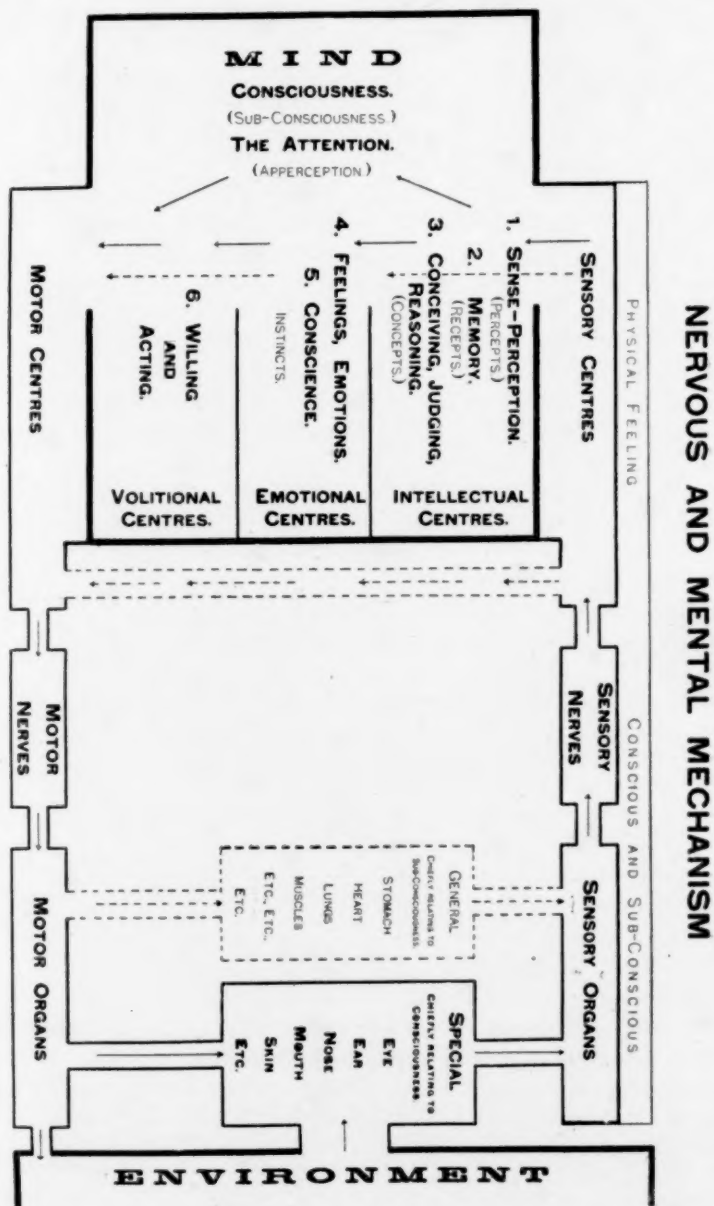


Fig. 3.

or from the muscular, temperature, or pressure senses. The mind reacting upon these, combines them into the composite objects of sense; and these complex sensations constitute the "presentations of sense," which are perceived by conscious intelligence as sense-percepts. The objective and introspective observation of these activities, reveals something of the nature and place of consciousness and sense-perception in the mental mechanism. They have to deal with "presentations of sense," as the clay, straw and bricks, of ideational construction, presented as sensations through the cortical cells in the sensory centres. These "presentations of sense," thus becoming percepts of consciousness, are to be distinguished from a higher order of such "sense-presentations," that are to be conceived as yielded by the organism in the activities of association, memory, judgment and will. These higher presentations in consciousness include what may be characterized as representations of the primary percepts.

The foregoing statements may serve the present purpose in indicating the place of consciousness, and its office in the sequence of mental activities. It cannot be defined. It is described as the mental power of knowing, and its existence is the condition of all internal experience; there are no other forms of such experience from which the nature of consciousness can be deduced or explained; it is never an activity or state that can be separated from the individual states and processes of consciousness, it is the common and necessary form of all mental states, and without it mind is not and cannot be conceived. It may be aroused to a high and wide energy of activity through the stir of feeling, or be in abeyance in a condition of dreamless sleep or swooning; between these extremes are many degrees of its activity. Its special form of self-consciousness is most unique and paradoxical; it recognizes itself as the subject of its own states, and also recognizes the states as its own.* Consciousness is knowing of self; the subject who observes is the object observed.†

In our present consideration of the activities that occur in the field of consciousness, in their natural order, we may therefore characterize consciousness as the mental condition of knowing that must exist as superseding all other activities of the individual mind. Self-consciousness is thus implied from the fact that everything mental is referred to self; and mind must be conceived as

* Ladd. *Phys. Psychol.*, pp. 544-5 Wundt. *Phys. Psychol.*, II, p. 195 f.

† Harris. *Int. to the Study of Philosophy*, p. 1.

the conscious subject (Ego) to which are presented all the internal psychical experiences of the individual.*

Consciousness may be conceived (p. 471) as standing apart, or sitting above (superseding) and looking upon the play of presentations in its own field. In this view of it we may first study its relations, as of the subject seeing, to the objects seen in these mental activities. It will appear in the course of this discussion that these objective activities are themselves forms of consciousness; and in the characterization of each of their divisions the activity of consciousness must be further described. In the conception of consciousness as presiding over its own activities, it is said that it may be in either a *passive* or an *active* state. Presentations of the senses are said to be *subconscious* when they might be perceived if attended to, as the ticking of a clock which goes on unnoticed and unheard when one is absorbed in thought. But it is a state of *passive consciousness* when, for example, disturbing noises and surrounding objects of sight are noticeable and present in consciousness but are kept in the outer regions of its field by the direction of the attention to some other chosen object. The voluntary directing or changing of the attention is "an active putting forth of mental energy—a conscious expenditure of inner force. This is *active consciousness* or *attention*, and the process by which the attention is concentrated upon the image is *apperception*."† Thus there goes on "the play of ideas through all these forms of transition, from the dark region of subconsciousness, to the brilliant focus of attention."

APPERCEPTION.

The power of apperception, as the essential form and mode of active consciousness in all its forms, must be distinguished here. It becomes necessary to anticipate somewhat the references to the activities which are to be noted later in their due order. The use of the word apperception in modern psychology, as defined in the theory of Wundt, is of great importance and value. The complex sensations before referred to, as the basis of presentations of sense, contain a presentative or knowledge element and, distinguished from it, also an affective element which constitutes in a large part the indefinite organic sensations, and those of some of the special senses, that cause feelings of comfort or discomfort,—pleasure or pain. These affective sensations tend to pass directly

* Ward. *Art. Psychology*. *Encyc. Brit.*, XX, p. 39.

† Baldwin. *Hand-book of Psychology*, p. 64.

to the field of mental feeling; but simple perception takes up, and is quite inseparable from, the presentative or knowledge element, and is the general act of cognition by consciousness of such sensations. But the higher activity of perception by which not only the primary data of sensation, but those of every kind, including percepts and concepts, are constructed into a synthesis of higher forms of relation, is called apperception. It is the power of the perception of things which are related, and the perception of the relation of things. Apperception is the highest and most comprehensive form of active consciousness.* If we may make the analogy of the field of consciousness to the field of vision, then is apperception the very mind's eye of consciousness. In the relating of presentations together, their combination, dissolution and arrangement, the activity of apperception may also be largely mechanical, and subconscious, acting under the laws of association. Apperception is the essential synthetic mental act in the three great stages of mental generalization, perception, conception and judgment.

THE ATTENTION.

Within the wide range of apperception just noted, with consciousness active or passive, or in the subconscious activities, it may be stated as a general characterization that active consciousness is attention. It is the act of holding a presentation before the mind, and this is always a conscious act. Attention always brings apperception into play, and both together are in active relation with all the activities in the field of consciousness and must be taken into account in describing these objective activities.†

The attention comes into action at the very beginning of all life experience, upon the first presentation of a sense-percept taking at first the form of passive apperception. Its place and the office of the word as describing a state of attending on the part of consciousness have already been indicated; further distinctions will be made in discussing its relation with feeling. It has been described as a general power of the mind accompanying all other mental activity. In its application to consciousness this is denoted as attending to presentations, and as being active enough at least to receive impressions. It is here that Wundt's theory of apperception as an essential characteristic of consciousness, necessitates discerning attention and perception. In its lower and natural plane of

* Cf. Baldwin, *Hand-book of Psych.*, pp. 65, 116, 270.

† Cf. Baldwin, *Hand-book of Psych.*, p. 69.

activity, common to man and the lower animals, conscious attention is *attracted* by presentations in the field of consciousness, thus it is a reflex mental activity. Here is introduced the important element of intensity of presentations, and it is plain that as varies this intensity, so may the attention be concentrated or prolonged, or changed to another arising presentation. In contrast to these *spontaneous* forms of attention, is *voluntary* or *directed* attention which is characterized by Ribot,* as artificial or acquired. Concentration of voluntary attention may also relatively intensify certain presentations, thereby diminishing the intensity of others whether presented from the side of physical feeling or other objective ideational presentation.

Attention, either voluntary or reflex, is directly involved in intellectual operations, and is necessary to all thought. As it increases the vividness of presentations and re-presentations, it renders them more definite and lasting and thus essentially aids the memory in the retention of images. Attention intensifies, in like manner, the emotions; they grow in intensity when thought of, and disappear when the attention is otherwise directed. It tends to derange the reflex and automatic functions of the body when morbidly exercised in regard to them. When reflex or attracted, it seems to be a relating activity joined to association; but a fundamental peculiarity of attention in its voluntary activity, is the feeling of effort, or expenditure of nervous energy caused by its exercise. Mental exhaustion and fatigue invariably follow a more or less prolonged exercise of the attention. Simple consciousness as in a state of revery, or passively attracted attention, unaccompanied by conscious mental effort, may be restful. But in morbid introspection, the attention being attracted strongly to intensified presentations causing anxiety and worry, the painful feeling stimulates fixed and concentrated attention with effort and expenditure of nervous energy. This indicates the great importance of the study of the attention in relation to insanity. The connection between attention and movement is also very close. Every voluntary movement is preceded by the idea of it in the mind, and the attention and will are always engaged in these voluntary motor activities, in their selection and direction. The elements of will and choice and of mental feeling as attracting attention are thus introduced; and the relations of these and of motor activity to the attention remain to be noted later.

* The Psychology of Attention.

SENSE-PERCEPTION.

Sense-perception has already been described sufficiently to indicate its place and office in the mental mechanism. It is the action of consciousness by which it perceives the presentations of sense, as percepts. The two powers of the mind, consciousness and sense-perception, are designated as the presentative faculties,—they present, and have cognition of, new ideas, or percepts, which, as “presentations,” are the objects of consciousness presented to mind as the perceiving subject. It has been stated that sensations, which constitute the basis of the presentations of sense, contain two elements,—the affective and the presentative. The senses may be divided into three classes according to the prominence of the affective or presentative (knowledge) element. First, in the organic sensations of the inner organs, and those of passive touch and temperature, the affective element seems to constitute the whole sensation and gives no appreciable knowledge. In the second, sensations of taste and smell, both elements appear; and finally, in sensations of hearing, sight, and active touch, there is much knowledge and very little feeling. The presentative or perception element furnishes the sense-presentations which sense-perception brings to the cognition of consciousness. These distinctions of sensation are of great importance in the present study of the phenomena wherein are to be found the variations accompanying mental disorder. It is from the physical data furnished by these sensations, including those of muscular sense, with its elements of the “feeling of resistance,” and the “feeling of effort” or of “innervation” arising from the central expenditure of nervous energy, that we get knowledge of extension and space. It is through muscular sensations, with the attention and will which they involve, that we have the idea both of mental and physical force.

A practical resume of the elements of the mechanism so far mentioned may be easily made for convenience of observation; and may be of value for diagnostic purposes. The observer, proceeding from without inward along the sensory path, may note the sequence of functions as follows, viz.: stimulation of end-organs, physical feeling, excitability, sensory impulses, conductivity, impressions in nervous centres, affective sensations (physical feeling converted directly into mental feeling), presentative sensations (with knowledge element), sense-presentations, sense-perception, percepts, attention, apperception, consciousness.

When the nervous centres are reached in this enumeration the designation of each element begins to seem but a refinement upon the preceding one; but each statement makes a distinct advance along the inward path toward apperceiving consciousness although some of the adjacent elements may be quite inseparable. The fact of difference caused by variation of intensity of stimulation, etc., must be kept in mind. As examples of these considerations when the train of elements in the sensory path is perceived from within, simple perception and sensation appear to consciousness as one activity,—even the differentiation of attracted attention and apperception is difficult; again an impression upon nervous centres is a purely physical element and may be too weak to cause any sensation to pass over the threshold of consciousness.

MEMORY,—IMAGINATION.

The re-presentative activities of mind come next in order. They are typified in the diagram (Fig. 3) by "Memory" and this may be briefly characterized for the present purpose. Memory includes the power of the organism to retain impressions and reproduce images of former presentations or percepts, and retention is that element of memory that is weakened in old age, for example, so that the more recent presentations are sooner forgotten than long past events. The commonly noted power of memory to recall the "stored up images" of former presentations acts under the laws of association of ideas; and Wundt and Ward hold strong views as to the essential importance of attention and apperception in their relations to memory. It is held that the difference of intensity of the primary presentation modifies retention, and failure of attention to the original percept leads to a failure of memory. There may be a special disorder of memory in the association processes as in a variety of aphasia. The laws of habit in the organism have an important relation to memory. But these particulars need not be dwelt upon here, the main purpose being to characterize the states of consciousness and to show their relative places in the order of their activities. Sufficient reference has been made to the physiological basis of memory and to the special questions of localization showing the value of pathological observations.*

It is of interest to note here the term "recepts" applied by Romanes† to a large class of memory images. The word "idea"

* Starr. *The Pathology of Sensory Aphasia*. Brain, July, 1889.

† *Mental Evolution in Man*, pp. 34-39.

may signify any product of the imagination. A "percept" is a simple, concrete idea, or mental image; a compound idea, arising out of a repetition of more or less similar percepts, may be designated as a "recept,"—a generic idea or image representing the whole class. An idea of a particular man is a percept, but the memory image of man in general is a recept. Recepts are spontaneous associations of simple percepts or mental images, passively *received (taken again)* in the mind; and recepts are generic ideas still consisting of images. Percepts and recepts are thus distinguished from the higher order of ideas designated as "concepts;" these are abstract notions, intentionally conceived, and never images. It has appeared, however, that simple sensations can never be discriminated, but are combined into composite objects of sense, and as sense-presentations constitute percepts. Following this law percepts are never really simple, but are complex in their very nature, though presented as units to consciousness. Moreover, every new percept, from our infancy upward, becomes less and less new in its simple elements, and more and more complex; at the very moment of its perception it spontaneously assort itself and falls into its appropriate class adding something to its revived generic recept thus newly modified at the moment of its re-presentation. While we may think about simple percepts, our thought is chiefly in recepts and concepts—in recepts representing complex and generic memory images without language, as it is with the lower animals—and in general concepts or abstract ideas, which can only be represented by words, as with man alone. These considerations have an interesting significance in regard to the analysis of the phenomena of disordered ideation, in which valuable distinctions may possibly be made between amnesia of memory images as recepts and word-blindness and word-deafness as amnesia of concepts. The use of the word "recepts" may be open to question, and, in the diagram, Fig. 3, it might better have "Imagination" substituted for it. The form of the word seems, however, to give it a peculiar fitness for the place, as if "percepts" and "recepts" were simply correlatives of "presentations" and "representations," and so lead up to "concepts;" but Dr. Romanes does not give the word so wide a meaning. The mental activities, so far considered, include the presentative and the reproductive; it may be said that, in general, they present new ideas, and re-present old ideas—those formerly held in consciousness. Memory may be defined as a mental revival of conscious experience. It deals with revived

images of presentations; its re-presentations are of the same nature, and the difference between the primary and secondary states is only one of degree. An analysis of the operations of memory reveals the elements of retention, reproduction, recognition, and localization, all of which acting together, constitute a finished act of memory.*

CONCEPTION. REASON. JUDGMENT.

The higher intellectual activities include the phenomena of consciousness designated as conception, judgment, and reason. These are called the comparative faculties. They may be regarded not as distinct powers or faculties, in the sense of being the manifestations of an acting mind, but as forms of consciousness. There is unity of consciousness through all these activities. In the antecedent activities of perception and imagination, conscious apperception had to deal with presentations and representations as simple and complex ideas in a synthesis of sense-percepts and memory images. In this higher order of functions now under consideration, ideas are still further generalized and abstract notions are formed of the qualities of things. The relations of things are involved in processes of synthesis, analysis and comparison. There is a conscious and voluntary apperception of representations of these activities, and attention is exercised in both its forms in relation to them.† They need only to be characterized briefly for the present purpose. Conception is the power, or process, by which we reach a general or abstract notion or concept of a thing. The data of presentation in perception and memory are images of things; words as representations of concepts bear a like relation to conception through all the higher operations of thought. Psychologists generally, in a like relation, regard as a concept the generic image to which Romanes has given the name of "recept." Judgment is the power or process by which we judge of the relations between mental states, or concepts of things. Reasoning is the highest form of the power of apperception, which was found acting in the synthesis of presentations into percepts and concepts, and determining their relations in judgment; with the data of judgment reasoning deals in the processes of deduction and induction. Reasoning may be characterized as that action of the mind by which we arrive at new truth.

* Baldwin, *Hand-book of Psychology*.

† See *Handbook of Psychology*, Baldwin, p. 270, et seq.

This sketch, in broad outline, may serve as a picture, so far as it goes and crude as it may be, of the most complex mental mechanism. In its working, physical feeling is stimulated, and sensations become presentations and percepts in the field of consciousness. There is a continuous inflow of presentations that are combined, condensed and elaborated. From the simplest percept to the highest order of logical conclusions, the processes deal with images representing things, and words representing concepts; and when there is any degree of activity of consciousness there is always, at "its *point* of clear vision," some single presentation or allied group of them, that stands salient in the continuous train, be it percept, recept or concept. This salient presentation may intensify, fade or change, but there is always one in clearest point of view, and more distinct than any other in the presentation-continuum.* The activity of attention is in the act of apperception, which is an attitude of perceiving, attending and discerning consciousness; and consciousness supersedes all these activities. These salient ideational presentations may be intensified by physical concomitants, stimulus, nervous processes, etc., and so attract attention reflexively; on this side therefore the activity of spontaneous attention always corresponds with the varying intensity or changing of the presentation. Furthermore every phase of ideational presentation in consciousness is accompanied by some degree of mental feeling, and it is precisely through the potency of its concurrent feeling that a presentation is intensified; and spontaneous attention always goes with the strongest feeling.† Thus through attention feeling determines apperception to the objective presentations that attract it; and now this inquiry comes, in due order, to a consideration of the nature of feeling and its office in the mental mechanism. But we have not lost sight of the presiding of consciousness over all these activities, and before proceeding to the characterization of mental feeling, something should be said on the side of apperception, as acting for the perceiving subject which looks down upon the passing train of presentations. We have seen that in perception and imagination, the laws of association and intensity of presentation hold the apperception down to a mechanical reconstruction of the data of presentation; but in reasoning, the energy of apperception transcends these bonds, and proceeding according to its own laws, exercises conscious and voluntary control over these higher

* Ward. *Prt. Psychology*. Encyc. Brit. XX. p. 44.

† Ribot. *The Psychology of Attention*.

activities.* This introduces voluntary and directed attention, and thus the will also. The will, through apperception, chooses and intensifies objects of thought inhibiting the ideation and the feeling wedded to it, that would command spontaneous attention; and by the exaltation of better conceptions and judgments stirs the better feeling to prompt the *action* of the will that is the resultant of the interplay of these activities. Thus the motor presentations (to apperception) are brought into the line of the presentation-continuum, or train of presentations that make the "circuit of consciousness"† from sensory entrance to motor exit (see Figs. 2 and 3); each activity simple and complex, momentarily most salient, is pursued through the circuit by the apperceiving (also choosing and directing) "*point of clear vision*," through which consciousness "*views*" the working of its own activities as it presides over them.

FEELINGS. EMOTIONS. CONSCIENCE.

The feelings have already been noticed in some of their relations to apperception, attention, ideation, and will. Feeling differs essentially from the knowing activity of consciousness. In the latter there is always conceivable the relation of the subject knowing and the object known. But the objective element is lacking in the affective states; in states of feeling consciousness is primarily affected, pleasurably or painfully. The knowledge element may be wanting, as in the organic bodily feelings or affective sensations from the side of physical feeling; or both of these may be combined in varying degrees.

The feelings, or affective faculties, present little for clear statement, because so little is known of their nature. No satisfactory classification has been made of them, and they are so connected with sensations and ideas as to make all separation in fact quite impossible.‡ There are many diverse views as to the nature of feeling. The theories generally held are of two classes; of the extreme forms of these, one holds that feeling is always merely a consciousness of a certain condition of the nervous elements; the other is based solely upon the truth that certain mental states called "*ideas*" are, as a rule, accompanied or followed by corresponding modes of being affected that are either agreeable or disagreeable feelings of pleasure or pain. It does not seem diffi-

* See Handbook of Psychology, Baldwin, p. 270.

† Ladd. Phys. Psychol., p. 494.

‡ Ladd. Phys. Psychol., p. 498.

cult to see that there is truth in both of these views. This will be more conveniently discussed when our inquiry reaches the consideration of the clinical manifestation of these activities. Mental feeling is always accompanied by a diffusive action throughout the nervous system, and by well-marked physical changes with manifestations of external expression.* Thus we have found physical feeling antecedent to ideation, through sensations and sense-presentations; and again we find mental feeling to accompany and follow presentations as ideation, and following mental there is again physical feeling which in its turn stands as the basis of a new order of sensations and presentations in consciousness. The relation of feeling to ideation and attention, and thus to apperception, has been stated; and on the other side also its relation to willing and acting, which it prompts, has been noticed as maintaining the unity or continuity of consciousness in its "circuit." The "idea" or representation of something that interests us, (*i. e.* arouses feeling that attracts attention), comes to be associated with the representation of such movements as will secure its realization; and this leads to the conversion of the idea of movement into the fact of it, through the movement to the attainment of the coveted reality. The law of unity or continuity of consciousness is thus followed.† The place of "conscience" as representing the moral sense is that assigned to it by the introspective psychologists, as it is shown in the diagram—Fig. 3. The term used is not insisted upon; the purpose here is to indicate the range of the feelings, unclassifiable though they may be, from the sensuous, that depend upon the different qualities of the sensations of the special senses and of common feeling, to the higher intellectual and moral feelings, that correspond to the relations of desire and will. These include the evolution of the finest and noblest altruistic sentiments as accompaniments of the loftiest ideation.

WILLING AND ACTING.

A discussion of the nature of the will is not in proper place here. Reference has already been made to its activity as a form of consciousness through apperception and voluntary attention; also its relation to feeling and desire through conception. The direct relation of feeling to movement has been noted. The words "Willing and Acting" are used in the diagram to jointly

* Sully. *Outlines of Psychology*, pp. 449-54. Carpenter. *Mental Physiology*, 4th Ed., p. 127.

† Ward. *Phys. Psych.* *Encyc. Brit.* XX, p. 42.

indicate the agency of the will at its juncture with motor centres. "Willing and Acting" denotes the last term of the presentation-continuum in the "circuit of consciousness" at its union with the first term of motor activity. Here are the resultants of the interplay of all the mental activities, the sums of the mental equations of their plus and minus quantities (and qualities), the intensifications and inhibitions through the interplay of sensations, presentations, feeling, and voluntary attention, showing the close relation of attention to movement. These resultants, are the stimuli of motor centres where expression in muscular motion is first nascent and then converted into motor impulses that pass outward along the motor tract. In the path through the field of consciousness the train of presentations is let in at the gate of entrance as sense-perceptions, and after transformation they are sent out at the gate of exit through the activity of "Willing and Acting."

The path of the mental transformation process may be a quick "short-circuit" from affective sensation to impulsive movement; but still it is an activity in consciousness including passive apperception, attracted attention with association of ideas, as in quiet revery with little feeling of effort as has before been noted; or there may be associated ideas of harm or offence, and feelings of fear, or anger prompting movement with judgment and will in accord. The like impulsive motor activity, may ensue from insistent and fixed ideas with judgment and reason and will powerless to inhibit such actions. Again there may be well poised self-control through the apperceiving power voluntarily attending to the chosen presentation or conception, inhibiting feeling and motor activity as has already been stated. It has been shown also that the expenditure of nervous energy characterizes these voluntary activities, and is marked by a central feeling of effort or inner-vation which may be very great even without movement, when this is inhibited and the muscular action remains latent.

SUBCONSCIOUSNESS.

This description of the nervous and mental mechanism has been purposely kept, so far, to the elements that contribute to consciousness through physical feeling and the mental activities. But a most important part of the psychical activities is that occupied by subconscious presentations. Leibnitz held that consciousness was not co-extensive with all psychical life but only with certain higher phases of it; and he first formulated the law of

continuity of presentations. The hypothesis of subconsciousness is based upon the fact easily verified, that we do not distinguish or attend separately to presentations of less than a certain assignable intensity. On attaining this intensity presentations are said to pass over the threshold of consciousness, to use Herbart's now classic phrase.* It is to the highest centres—those of consciousness—that are mainly carried the impressions that we receive from the outer world by our sense-organs, in the centres for which are mainly registered the impressions of sight, of hearing, etc. It is these that have received the chief attention of psychologists. These are all within the region of object-consciousness. But common sensations, or presentations of organic sense constitute a vast aggregate of impressions arising from within the organism and continually flowing towards the superior nervous system. They come from all the organs and tissues in a never-ending flow as long as life lasts. This is the region of subject-consciousness, it gives the consciousness of being, the sense of personality. "The turbulent world of desires, passions, perceptions, images and ideas, covers up this silent background."† Sights, sounds, tastes, smells, touches,—like the glitter and movement and noise of the waves of the sea—are of various degrees of intensity and not all produce sensations that pass over the threshold; but all are of high intensity compared with the deep ground-swell of feeling that arises from the interior of the organism itself. While the former are of great intensity they are intermittent and of small volume compared with the voluminous though faint, continuous and all pervading, commotions of subject-consciousness. In health, the equilibrium and harmonious working of the activities of the subconscious mechanism yield an inflow of presentations not intense enough to reach discerning attention but susceptible of psychical interpretation as a sense of well-being. In most significant contrast to this it may be shown how the sense of ill-being finds its source when we come to study its clinical manifestations.

The nervous and mental mechanism, has been so far considered, in making this sketch-picture of it, as a "machine," representing the average isolated human organism from a biological point of view. But when the mechanism is put in use it will be found to lack a most important part of its animating forces, were it not remembered that as an organic mechanism, it came into being with

*Ward. *Art. Psychology. Encyc. Brit. XX, p. 47.*

†See Ribot, *Maladies of the Personality.*

a certain endowment of peculiarities of construction, which give to each and every such organism its individuality. Without entering upon the discussion of "self-activities" as defined by introspective psychology, there must be recognized in every such "mechanism" a potentiality that largely determines its individuality upon development whatever be its experience and education; it is that endowment which is inherited and shows itself in brain function, and there being added to it that which is acquired by experience, it constitutes the character of the individual. The instincts illustrate this; they are the lowest of the feelings, and being "adaptive impulses" they prompt to action in the absence of intellect. They are acquired during the process of evolution, and by the laws of habit they become organic. Instinct may be said to be organic habit. In like manner, other inherent endowments of the higher mental activities, though not so much organized, still have differentiating potentialities.

The fundamental activities of mind, which are manifested after birth, do not originate after birth. There are potential self-activities in the sense, at least, that the mind of an infant is not a *tabula vasa*. Heredity is just as important as individual activity in the genesis of mind; and every man by means of his experience, must fill out and animate anew his inherited endowments, the remains of the experiences and activities of his ancestors.*

This presentation of the elements that make up the normal mechanism furnishes, for the present purpose, a conspectus of it that may serve as a standard for comparison. In the following pages there remain to be considered, the mechanism in use, and the disorders of the mental mechanism.

* Preyer. *The Mind of the Child*. Part I. Preface to 1st Ed.

PECULIAR MANIFESTATIONS IN A HYSTERICAL BOY.*

BY A. H. HARRINGTON, M. D.,†

Assistant Physician Danvers Lunatic Hospital, Danvers, Mass.

The object in reporting this case is to present what seems to be an instance of *cerebral autonomy*, and above all to refer to the *medico-legal* relations of such cases. The word *hysterical* is employed here as there seems to be no term more apt in use at present.

Previous History of the Patient.—Edwin C., age 15; born in Sweden; came to this country in July, 1888. He resided here with relatives and was apprenticed to a brass-finisher. Parents living in Sweden; family history not ascertained; patient has never had any unusual illness as far as learned.

October 31st, 1888, the boy came home from the shop in a very agitated state of mind, and said that a man with whom he was working became angry at him on account of a dispute which arose between them, and had struck him on the top of the head with a heavy stick. The boy ate his supper and retired at the usual hour still much disturbed by the occurrence of the day. In the night the family was aroused by a noise in his room. He was found thrashing about on the bed, staring wildly and seemingly in fear of something. He did not appear to be aware of the presence of others, and when he came out of this state he seemed surprised and did not know what had happened. Several such attacks occurred before morning, and it is said that three or four persons were necessary to restrain him during his excitement. In the intervals he behaved properly and talked rationally. The next day he seemed all right, but the second night was a repetition of the first. Physicians were summoned to the case, but the patient went on in the same way. He would be quiet and seem reasonable during the day, but at night a series of attacks was sure to follow. This state of affairs lasted a month when his people became worn out taking care of him, and were afraid of him, and had him committed to the hospital. The physicians' certificate read as follows: "Edwin C. suffers from delirium and

* Read before the Rhode Island Medical Society, December 12th, 1889.

† Part of the original notes of this case were made by my colleague Dr. E. P. Elliot.

convulsions, the direct result of an injury, said injury supposed to be an assault; and the said Edwin C. is in our opinion an unsafe person to be at large, as he has marked homicidal tendencies."

Examination on Admission.—Patient is short for his age, otherwise he does not seem undeveloped physically; rather anæmic; vital organs healthy; no disorder of the motor system discovered. A point of great tenderness is found in the scalp, a trifle to the right of the median line, and one inch behind the plane of a perpendicular, passing through to the two meatuses. This is the place, the boy says, where he was struck when assaulted. No irregularity or depression of the skull is felt in the neighborhood of the tender spot. Patient does not like to have his head handled, and cringes and cries out whenever the tender spot is touched. He complains of severe headache but does not localize the pain. He says that he knows nothing about his "fits," as he calls them, except what has been told him. The boy is self-possessed during the examination and tells the story of the assault in a straightforward manner. He has been in this country but five months, but already understands nearly everything said to him, and can express himself well in English. His intelligence is undoubtedly good, but he impresses one as evidently of a neurotic temperament, and he seems pleased in being the object of attention and is plainly gratified by sympathy.

History while in the Hospital.—The patient was admitted November 31st, 1888. For the three following nights several attacks were reported by the night nurse, some of which we witnessed. They came on in the midst of sleep or while the patient was perfectly quiet. At first there would be hurried respirations, pallor of the face, the eyes would roll about wildly, then motions of striking and pushing; the patient would jump up in bed and seem to assume an attitude of defense, often he cried out, "if you strike me again I will tell the foreman." He would grasp the bedding or the clothing of a person who went to him so tightly that it was difficult to release his hold. This state would continue several moments; during this time he seemed oblivious of the true nature of his surroundings; his attention and actions seemed directed to some imaginary object. He could not be aroused by speaking to him or by shaking him, but it was found that deep pressure upon the supra-orbital foramina would cut short an attack. At the end of one of these spells he would fall back exhausted and look about with a surprised expression, and would immediately complain of headache. He would not remember what had happened, but once

when questioned said that he had seen the man who had struck him.

It was ascertained that he had a great dread of being locked up alone. Advantage was taken of this and he was told that his foolish actions must cease or he would be shut into a room alone. Seemingly the fear of this had a marked effect, for fifteen days passed without a single attack. December 17, 1888, however, he was summoned to court to appear against his assailant. No sooner had the boy seen him than he became greatly agitated and created considerable disturbance in the court-room. The person charged with the assault was dismissed on account of insufficient evidence. The patient returned to the hospital much disturbed by the experience of the day, and that night he had several attacks; in addition they also began to occur during the day, but they now lost to a great degree their distinctive characteristics, the details of an attack such as first described were not present, but he would simply fall over, roll about a little, and in a few seconds he would be over it.

The clinical history as thus far given is sufficient for the purpose of this paper, but to complete the account of the case, without entering into details, it may be stated that for two or three months after the attacks lost the special characteristics which they had at first, he continued having nervous manifestations which could be regarded as nothing else than *hysterical*. Finally, by the use of a tonic of iron and strychnia and by steady out-of-door employment, allowing him no time for idling, also by bringing any moral influence to bear upon him, which was found to have a restraining effect, his general health was built up and he was at length able to throw off his hysterical habit or to resist it; and after passing a period of four months without any recurrence of symptoms he was discharged recovered. While he may be said to have recovered from these attacks, yet he possesses such an unsettled nervous and mental organization that under any great stress he will probably break down again.

To review now two or three points in the history of this case: The boy, in a quarrel with a fellow-workman, received a severe blow on the head; of this there is hardly any doubt, though there was not sufficient direct evidence to that effect to satisfy a court of law. He came to the hospital with the statement of the physicians who had treated him, and who also committed him, that he was suffering from convulsions, the direct result of an injury; the point of tenderness was also found upon the top of the

head. At the first blush it would appear as though the patient had either sustained an injury of the skull or of the brain, which had set up a cortical irritation from which the convulsions were proceeding; the close relation of the seat of injury to the motor-area of the brain might add to such a belief, but a careful observation of the actions of this patient during an attack showed at once that what had been described as convulsions were not properly such. In short, the attacks were not at all like those which would spring from any injury or actual lesion of the brain. Convinced of this, and not being able to account for the symptoms on any physical basis, it would be an easy matter to say that all these attacks were hysterical and dismiss the subject. From the time when these attacks lost the peculiar characteristics which I have described, I do not know as we have a better term to apply to them than the word *hysterical*, but it seems as though the peculiar actions of the boy during his earlier attacks might admit of an explanation more definite in statement.

To refer to a former remark, the patient possessed an unstable, nervous and mental organization. He seemed to belong to a class which is well recognized, and which is composed chiefly of the young and certain of the female sex, a leading characteristic of which is that their minds are easily and deeply impressed and their emotional nature stirred by any event which is at all sudden or startling. I believe that this patient in his difficulty with his fellow workman, received a fright or mental shock which agitated him for hours afterwards. In this state he went to bed and probably in a dream either his assailant appeared before him or something connected with the occurrence of the afternoon was presented. This was sufficient to revive the whole scene and to arouse again all the emotions through which he had passed, and these emotions are repeated with all their accompanying outward expression or reflexes. He seems to be in fear of something, he jumps up in bed and seems to be defending himself; he goes through the motions of pushing and striking, and he even cries out in some of the attacks "if you strike me again I will tell the foreman," a sentence which possibly he first said at the time of the actual occurrence. During this time only a portion of the sensory faculties are stimulated, and they are so intensely occupied that they do not respond to ordinary sensations, the true relation between the subject and his actual surroundings is not perceived, the higher faculties are transcended by the concentration of the lower; consciousness can not be aroused by speaking to him or by taking hold of him. It

is only when such a painful impression is produced as that caused by deep pressure upon the supra-orbital foramina that full consciousness is aroused. The state of the patient was, I believe, very similar to that of the person who is hypnotized, with the exception that, instead of *suggestion* being brought about by a second person, the scene of the assault or something connected with it sufficiently vivid to call up certain emotions, together with their outward expression, was called up by a dream or perhaps an hallucination.

Viewing the case in this way the cause of the attacks is to be regarded as purely psychic, depending upon mental shock or fright in the first place, and not upon any direct physical injury, and after the attacks had repeated themselves a number of times the habit became established. During the fifteen days which elapsed without any attacks, probably the deep mental impression which he had received was effaced to a considerable extent, but a hysterical habit had been acquired which was aroused again by the association connected with the sight of his assailant whom he saw in court.

But I could hardly have allowed myself to occupy your time to-day with this case, the study of which may seem to have greater interest for the student of psychiatry than the general practitioner, were it not that it seems to me to have a most practical bearing, for it is the study of such cases that gives us an insight into the automatic states or conditions, which may exist in certain instances where there is absence of consciousness or where if present in any degree it is not sufficient to coördinate in full the perceptive or reasoning faculties.

It is just these automatic conditions that have furnished some of the most obscure problems of medical jurisprudence.

In regard to the case before us the certificate of the committing physicians states that the patient was an unsafe person to be at large as he had marked *homicidal* tendencies. This was founded principally upon the fact that in one of his attacks he seized a knife, which he flourished about, though no harm was done; but if he could go thus far, it is not difficult to conceive that he might have gone further and done some one an injury. If my explanation of the case is the correct one, there could be no question about his irresponsibility. Yet in the intervals his behavior would bear the closest scrutiny, without yielding any sign of mental disorder. Conditions in which very complicated acts are performed in a purely automatic manner, exist in connection with "dreaming

states;" in somnambulism; in hypnotism, and a like condition holds in epilepsy, yet in the intervals the mind may be free from everything suggesting mental disorder.

It often happens that a jury fails to comprehend such conditions. Not long since, in a neighboring state, a most atrocious homicide* was committed by an epileptic. Of his irresponsibility there seemed no room for a moral doubt, but according to the rulings of the judge, as there was room for a legal doubt, the jury returned a verdict of guilty.

Although the case which I have reported might properly enough be called one of *hysterical manifestations*, yet a certain phase of it, when studied carefully, seems to present an excellent, and in this instance, a peculiar example of a series of acts performed in an automatic manner, without the guidance of the higher or reasoning faculties and below the plane of consciousness, and the point to be emphasized is the irresponsibility of the person for acts performed or crimes committed while in such a state, and if we can recognize such cases, there will be less variance in the medical testimony of honest physicians when such cases come to have a medico-legal bearing.

* "The Barber Case," by P. M. Wise, M. D., AMERICAN JOURNAL OF INSANITY, January, 1889.

CLINICAL CASES.

CHLORALAMID AS A HYPNOTIC FOR THE INSANE.

BY WILLIAM MABON, M. D.,
Assistant Physician, State Hospital, Utica, N. Y.

Chloralamid is represented by the formula $\text{CCl}_3 \text{H} < \begin{smallmatrix} \text{OH} \\ \text{NH} \end{smallmatrix} \text{CHO}$, and is the result of the combination of chloral anhydride and formamide. It is not a mechanical mixture as its name implies, but should be called a chloral formamide or formidate of chloral. It occurs in colorless crystals and is said to be soluble in nine parts of water and two and one-half parts of alcohol. It has a slightly bitter taste and its reaction is neutral. The use of alkalies is contra-indicated as is hot water at a temperature of 148°F. , as the drug is decomposed by them. The dose is from twenty to sixty grains—Rabow considers that forty-five grains equal thirty-five of chloral. It is said that the blood pressure is very slightly altered by its use. The explanation given by Kny is: "Chloralamid circulating with the blood is separated by the free alkali of the latter into chloral hydrate and formamide. This decomposition is effected very gradually, and therefore only very small quantities of chloral hydrate act at one time. The other component of chloralamid, formamid represents, like all other substances belonging to the amid group, a powerful stimulant of the vasomotory centre in the medulla, and therefore greatly helps to keep the blood-pressure at its normal level."

In order to test its value as a hypnotic among the insane, it was given to twenty patients suffering from various forms of mental alienation, and the following results were obtained:

CASE I. *Malancholia Agitata*.—R. M. B., woman; aged sixty-five. First night the patient received a dose of twenty grains, but did not obtain any rest for three hours, when she went to sleep and slept for four and a half hours. The second night the dose was increased to thirty grains, and sleep lasting four hours resulted at the end of forty-five minutes. The third dose, in half an hour, produced seven hours' sleep, unsound in character. Five more observations were made, sleep resulting in each case in half an hour, but never continuing more than five hours, although the dose had been increased to forty-five grains. With a combination of twenty

grains of chloral and two drachms of tinct. hyoseyami patient always obtained a good night's rest.

CASE II. *Chronic Mania*.—M. K., woman; aged thirty-eight. Drug was administered eight nights in doses of from twenty to forty-five grains, and the sleep produced resulted in from one to four hours, but did not continue more than four hours, except in one instance, when patient obtained seven hours' rest. In this case the different hypnotics and other means of producing sleep had been tried previously, but with unsatisfactory results.

CASE III. *Melancholia with frenzy*.—E. R., woman; aged thirty-six. Patient was first given a dose of thirty grains, but did not obtain any rest. The second night a dose of forty-five grains was administered with the same result. This dose occasioned some nausea and inco-ordination. It was therefore not increased on the third administration, when the patient obtained three hours' sleep four hours after its use. On the fourth trial the patient remained awake and noisy all night. On the fifth, sixth and seventh nights from two to four hours' sleep resulted, on the eighth six hours. On no occasion did sleep occur in less than three hours from the time of its being given.

CASE IV. *Acute Mania*.—M. A., woman; aged thirty-six. Chloralamid was first given in a dose of thirty grains, but without result. The following night forty-five grains were given, but again no sleep was obtained. With the third dose patient obtained four hours' sleep, five hours after its use. On the fourth night with forty-five grains the result was negative. On the fifth sleep resulted in fifteen minutes and continued for seven hours. The next night, after half an hour, a sleep occurred which continued for five hours and a half. On the two following nights the drug produced four hours' sleep, the effect being noticed four hours after its use. This patient was extremely restless and maniacal, but had always obtained several hours' sound rest by the use of sul-fonal or chloral.

CASE V. *Acute Mania*.—E. T., woman; aged forty-seven. The first two nights with doses of thirty and forty-five grains the result was *nil*. The following six nights patient obtained on each occasion seven hours' sleep, the result being noticed from half an hour to two hours after using. In this case the active symptoms had subsided at the time of the first administration of the drug, and the patient now sleeps without the aid of any hypnotic.

CASE VI. *Melancholia*.—H. P., woman; aged thirty-five. Patient had been addicted to the excessive use of opium for several years previous to her admission to the hospital, and at the time of these observations was exceedingly nervous and sleepless. Eight trials in all were made in doses of thirty and forty-five grains. The sleep produced never exceeded three hours, and required two hours in each instance to bring about the result. It was very light in character, the entrance of the night nurse sufficing to awaken the patient.

CASE VII. *Melancholia*.—A. M. B., woman; aged thirty-five. This patient had also been an opium habitué, but had entirely recovered from the active symptoms of the drug at the time of the administration of chloralamid. On the first night patient went to sleep three hours after thirty grains had been given, and slept only four hours. With forty-five grain doses the following seven nights from five to eight hours' sleep resulted, being produced in half an hour from the time of its employment. The nurse reported that simply touching the patient would arouse her, but that soon afterwards she would fall asleep again.

CASE VIII. *Chronic Insanity*.—B. G., woman; aged fifty-five. Unless some sleep-producing remedy was given patient would be rather noisy for a short time each night. The drug was given twice in doses of thirty grains, and brought about on each occasion six and a half hours' sleep in half an hour.

CASE IX. *Chronic Mania*.—J. M., woman; aged forty-one. On the first night patient went to sleep in half an hour, and obtained seven and a half hours' natural sleep. On the second night sleep resulted in half an hour, and continued for eight hours. On the third no sleep at all was obtained; on the following night, therefore, the dose was increased from thirty to forty-five grains, and the patient slept six hours, the result being noted in an hour. With the same dose on the fifth and sixth nights similar results occurred.

CASE X. *Secondary Dementia*.—L. M. O'B., woman; aged twenty-six. This patient is up and about her room frequently during the night. At times she is exceedingly noisy for an hour or two. Six observations were made, the dose being thirty grains, and the result obtained averaged six and a half hours, the time to produce the same being from one hour to an hour and a half.

CASE XI. *Melancholia*.—A. J. McL., woman; aged thirty-eight. The same number of observations were made and results obtained as in the preceding case.

CASE XII. *Senile Dementia*.—B. F., woman; aged sixty-two. The first night with a dose of thirty grains, a sleep resulting in two hours and continuing for four hours was obtained. The next, patient was awake all night. On the third the result was similar to the first, although forty-five grains were given. On the fourth, fifth and sixth administrations, six hours' sleep resulted in each instance, and the same was produced in an hour, the dose being forty-five grains.

CASE XIII. *Acute Mania*.—H. K., woman; aged twenty-one. With thirty grains patient did not sleep until four o'clock the following morning, and then slept only two hours. On the second night forty-five grains were given, and six hours' restless sleep was produced in half an hour. On the third the same dose was given with a negative result. On the fourth five hours' sleep was obtained in an hour and a half. On the fifth the result was similar to that on the first, although forty-five grains were given. On the sixth and last administration the patient vomited in an hour after its employment, and did not obtain over an hour's sleep. This patient has generally resisted the action of the different hypnotics.

CASE XIV. *Melancholia Agitata*.—F. D., woman; aged twenty-two. Has had the different sleep-producing remedies administered to her without satisfactory results. Chloral produced the best effect. The first night, therefore, forty-five grains of chloral-amid were given at seven o'clock; sleep was brought about at nine and continued until two in the morning, when she awoke, and from that time on until daylight was very restless. The second night four hours passed before any result was noticed, and the sleep, which continued five hours, was restless in character. The third dose resulted in about three hours' sleep, one hour after its administration. The fourth night sixty grains were given, the result following in an hour and continuing six hours. The next morning the patient appeared confused and there was some inco-ordination. On the following night the dose was reduced to forty-five grains, no result being obtained in four hours, and the patient being quite noisy, it was necessary to give another dose. An hour later patient was asleep and continued so for four hours. On the last

night forty-five grains produced in half an hour, five hours of restless and broken sleep.

CASE XV. *Chronic Mania*.—M. S., woman; aged thirty-five. Thirty grains were given the first night, and sleep was procured in two and a half hours, continued for three and a half hours, afterwards was awake for an hour, and then slept two hours more. The second night the dose was repeated, but the patient did not sleep until three o'clock the following morning, when she obtained three hours of natural rest. On the third night forty-five grains produced in two hours, six hours' sleep. On the fourth night the same number of grains, in half an hour, brought about five hours of fairly sound sleep. The fifth and sixth trials gave results similar to those of the third night.

CASE XVI. *Melancholia*.—H. H., woman; aged forty-three. This patient has always been able to obtain a good night's rest with either chloral or paraldehyde. The first three nights after taking thirty grain doses of chloralamid the patient procured sleep in from half an hour to an hour, and slept seven hours. On the fourth night sleep did not result for four hours, and continued only three hours. The following morning the patient complained of vertigo. On the fifth night forty-five grains were given, sleep resulting in half an hour, and continuing for six hours; it was light in character. On the sixth and last occasion forty-five grains brought about in an hour a sleep of seven hours' duration.

CASE XVII. *Chronic Mania*.—K. O., woman; aged seventy-six. The first administration was thirty grains, and the effect was noticed in half an hour, but the sleep which resulted was restless and continued five hours. The second night forty-five grains were employed, and the result was the same as on the first trial. The third dose was forty-five grains, and produced in one hour, six hours of fairly sound sleep. On the fourth, with a like dose, patient did not obtain more than two hours' sleep the entire night. On the fifth trial she went to sleep in half an hour, and rested soundly for eight hours. On the sixth and last night the result was like that on the fourth.

CASE XVIII. *Melancholia Agitata*.—C. K., woman; aged twenty-six. From the time of her admission to this hospital this patient has been extremely restless during the day; she constantly walked up and down the ward, wringing her hands and bemoaning her lot. Her delusions were very active. Chloral was the only

remedy that would produce five hours' sleep any one night. She was first given a dose of thirty grains of chloralamid, but as no result was obtained, the second night it was increased to forty-five grains, when, after an hour, the patient went to sleep for two hours. On the third the amount of sleep procured was the same as on the second trial, but three hours passed before the effect of the drug was noted. On the fourth, the dose was increased to sixty grains; after three hours sleep resulted and continued three hours and a half. The same dose on the fifth night produced no result until three o'clock the following morning, and the sleep which occurred was restless and continued but two and a half hours.

CASE XIX. *Chronic Mania*.—C. C., women; aged thirty-eight. This patient has had periods of wakefulness when sulfonal was the only beneficial sleep-producing remedy. The first night thirty grains of chloralamid were given and sleep was procured in one hour and continued seven and a half hours. The second night the employment of a like dose was followed by a like result. On the third night however two and a half hours elapsed before any effect was noticed and five hours sleep resulted. The last three administrations were as successful as those obtained on the first two nights, with the exception of the sixth night when an interval of two hours passed from the time of employment to the time sleep resulted.

CASE XX. *Periodic Mania*.—P. A., woman; aged sixty-five. For a month previous to the giving of chloralamid patient had been very disturbed, but had been able to obtain a fair night's rest by the use of thirty grain doses of sulfonal. Thirty grains of chloralamid were first given and the resulting sleep took place in three hours and lasted four and a half hours. The following night forty-five grains were given, sleep resulted in an hour and lasted three hours and three-quarters. On the third night, this dose having been repeated, patient went to sleep in two hours and slept four hours. The fourth night a sleep of six and a quarter hours was procured in an hour. The fifth dose was followed in an hour and three quarters by a sleep lasting three hours. The sixth and last was similar to the fifth.

SUMMARY.—The drug was administered, in doses of from twenty to sixty grains, one hundred and thirty times, and the results are summarized as follows: Twenty grains were given twice

and they produced an average sleep of three and three-quarter hours. Thirty grains administered fifty-one times averaged five hours' sleep. Seventy-four doses of forty-five grains procured sleep which averaged four and two-fifths hours. Average of sixty grain doses given three times, was three and five-sixths hours. General average was four and three-fifths hours.

In the successful cases thirty grain doses seemed to give the most satisfactory sleep. The time required to induce sleep varied from fifteen minutes to five hours, and in character it was with few exceptions light and restless. In case No. III nausea and inco-ordination followed the administration of forty-five grains. Once (Case XIII) vomiting was produced. In Case XIV some confusion and inco-ordination were noticed and in Case XVI patient complained of vertigo.

Finally. These limited observations seem to the writer to indicate that in this class of cases we have in sulfonal and chloral better means for procuring quiet and restful sleep than is vouchsafed by chloralamid.

SULPHONAL AS HYPNOTIC.

BY OWEN COPP, M. D.,

Assistant Physician, State Lunatic Hospital, Taunton, Mass.

The singular unanimity of experience and opinion in favor of sulphonal as a hypnotic led me to make a series of trials of it upon insomniac patients in this hospital.

The cases chosen for this purpose represented classes of the most obstinate wakefulness, five being complicated by great motor excitement. Fifteen grains each of chloral and potassic bromide would induce no sleep in three of them, and only two or three hours in five; hyoscine hydrobromate, gr. $\frac{1}{100}$ — $\frac{1}{50}$, none in two and about three hours in four.

The drug was taken as a powder, usually at bedtime, ninety-five times by fifteen different patients suffering from insomnia arising in the course of chronic mania in three, acute mania in two, chronic melancholia in five, acute melancholia in two, and of dipsomania, recurrent insanity and general paresis in one each.

If six to nine hours of continuous sleep be the measure of an excellent hypnotic effect, four or five hours a fair one, one to three and one-half hours an imperfect,—then the result, as a whole, was excellent in nine cases, fair in two, imperfect in four; of the whole number of doses excellent in 36 per cent, fair in 27 per cent, imperfect in 32 per cent, useless in 5 per cent. Of the five greatly excited cases the success, as a whole, was excellent in one, fair in one, imperfect in three; of the thirty-one doses taken by them excellent in 23 per cent, fair in 26 per cent, imperfect in 35 per cent, useless in 16 per cent.

Of the ten quiet or mildly agitated cases it was excellent in eight, fair in one, imperfect in one: of the sixty-four doses taken by them excellent in 42 per cent, fair in 27 per cent, imperfect in 31 per cent. In summary, an excellent or fair hypnotic effect was obtained from 63 per cent of the whole number of doses, from 49 per cent of those taken by greatly excited patients, and from 69 per cent of those taken by the quiet or mildly agitated. All the total failures occurred among the former class.

Drowsiness or distinct somnolence was noticed as after-effect in four cases. The efficiency of equal doses seemed to be increased on successive nights, or prolonged to the next, in ten cases. Apparent loss of power was noticeable in one. The interval before sleep was usually one-half to two hours.

Of fifty-one *fifteen* grain doses 24 per cent had excellent effect, 29 per cent fair, 39 per cent imperfect, 8 per cent none; of thirty-nine *thirty* grain doses 51 per cent excellent, 26 per cent fair, 20 per cent imperfect, 3 per cent none; of five *forty-five* grain doses 40 per cent fair, 60 per cent imperfect. The latter dose was given only when thirty grains failed or were imperfect in action.

These percentages tend to show that sulphonal is an efficient sleep-producer. How much collateral disturbance is excited by it could not be accurately determined in this series of observations, by reason of incoherence, excitement or unreliable tendencies in the patients. Therefore it was decided to complete the inquiry by noting its effects upon normal persons.

Six officers and attendants were found willing to make the test. Sulphonal was administered to them in five ounces of hot water within an hour after a meal on three successive days at the same hour. Pulse and respiration were recorded half hourly during the first three hours, thereafter hourly until 10 P. M., and just before rising in the morning; temperature hourly after same plan. Special attention was directed to its hypnotic power, stimulation, depression, headache, vertigo, nausea, changes in pupils, condition of skin, dryness of throat, thirst, interference with appetite, digestion, action of bowels, muscular relaxation or motor disturbances. In four cases the urine was examined before and after the experiment.

CASE I.—A. B. M.; man; aged 25; weight 187. Fifteen grains at 7 P. M., no effect; second night same dose, slight drowsiness during the next day; third night *thirty* grains, marked drowsiness, drooping and puffiness of eyelids within an hour, increasing until bedtime. He slept soundly all night, awoke at usual time in the morning with feeling of tightness through temples, and felt dull and irritable all day. He passed 25½ oz. of urine during the first twenty-four hours, 40½ oz. during second, 68 oz. during third; no chemical change; average normal amount, 51 oz.

CASE II.—H. G. H., man; aged 21; weight 195. Fifteen grains at 7 P. M., no effect; second night same dose, within two hours, drowsiness, slight vertigo and difficulty in coördinating movements of lower extremities, which was felt for two hours of the next forenoon; third night *thirty* grains, within three-quarters of an hour distinct drowsiness, drooping and puffiness of eyelids, increasing until bedtime; at the end of two and one-half hours slight headache, marked vertigo, and difficulty in coördinating

movements of lower extremities. He slept soundly all night, awoke at usual time in the morning, but suffered all day with drowsiness, headache, vertigo, nausea, loss of appetite and general muscular relaxation. These symptoms persisted to a less degree during the two succeeding days. Urine normal.

CASE III.—J. W. E., man; aged 24; weight 128. Fifteen grains at 2 P. M., no effect: second afternoon same dose caused him to oversleep the next morning and feel dull for a part of forenoon; third afternoon *thirty* grains, drooping and puffiness of eyelids and rather a sleepy look but denial of any drowsiness; in the evening mild exhilaration, confused talkativeness, thickness of speech, inability to play his usually good game of cards, forgetfulness in dealing them and in the use of words. His companions remarked that he acted like a "drunken man." After retiring he lay awake half an hour with severe headache, nausea and vertigo. His head seemed to make rapid rotations, then suddenly coming to a dead stop, to repeat these movements. He said that he never was more sick in his life. Sleep was prolonged in the morning and left him stupid and listless during the forenoon. Urine normal except distinct alkalinity and precipitation of phosphates for twenty-four hours after the thirty grain dose.

CASE IV.—O. C., man; aged 31; weight 160. Fifteen grains at 2 P. M., no effect; second afternoon same dose, distinct drowsiness and tightness through temples after four hours, in the evening slight vertigo and muscular relaxation; third afternoon *thirty* grains, within three-quarters of an hour marked drowsiness increasing for two hours so that great effort was required to keep awake. During the next three hours his sensations were entirely comfortable and such as would naturally be induced by intense desire of sleep. Thereafter this desire began to diminish and was succeeded by a group of very disagreeable symptoms. There ensued noticeable difficulty in coördinating movements of legs and arms and in speaking clearly, marked vertigo, nausea and four attacks of vomiting. The nausea and vomiting seemed directly dependent on the vertigo and would appear and disappear with it. The vertigo was excited or very much increased by closure of the eyes. He fell asleep at once on retiring, awoke at usual time in the morning but suffered two days in lessening degree from drowsiness, headache, vertigo, nausea, loss of appetite and muscular relaxation. Urine normal excepting alkalinity and

precipitation of phosphates which began seven hours after the thirty grain dose and continued twenty-four hours.

CASE V.—S. G. H., woman; aged about 30, weight 135. Ten grains at 2 P. M., no effect: second afternoon fifteen grains, no effect; third afternoon twenty-five grains, slight drowsiness, drooping and puffiness of eyelids late in the evening; in the morning vertigo and lassitude lasting into the afternoon. Her friends noticed that she looked paler than usual during the last two days under sulphonal. Urine not examined.

CASE VI.—R. E., woman; aged about 30; weight 125. Ten grains at 2 P. M., no effect until evening when she became so drowsy that she fell asleep with her clothes on and gas burning, and did not awake until 4.30 A. M., then hastily preparing for bed she again slept and required to be awakened for breakfast; second afternoon fifteen grains, within two hours marked drowsiness, vertigo, and nausea lasting two hours and followed by mild exhilaration until bedtime. She again overslept the next morning and felt stupid and relaxed during the forenoon, third afternoon twenty grains: at the end of an hour she was prostrated and obliged to sleep; while awake there were drooping and puffiness of eyelids, difficulty in coördinating movements of the extremities and in speaking clearly; headache, vertigo, nausea and mental confusion so as to prevent the performance of her customary duties. Her sleep was heavy during the night and prolonged in the morning. During the next forenoon she was compelled to take a nap lasting several hours and felt dull and miserable all day. Urine not examined.

In no instance was there material alteration in pulse, respiration, temperature, pupils, thirst, condition of skin, throat or bowels. Within three-quarters to one hour after maximum doses the inclination to sleep was marked in four cases, slight in two. The accompanying symptoms were drooping and puffiness of eyelids in five cases, headache in three, vertigo in four, nausea in three, vomiting in one, stimulation in two, mental confusion in two, motor disturbances in four and alkalinity of urine in two; after-effects were slight in three cases and confined to hebetude, vertigo and lassitude which disappeared in one day; marked in the other three were somnolence, headache, vertigo, nausea, loss of appetite and muscular relaxation lasting one to three days. In four cases equal doses were administered twice in succession with increase of efficiency in three of them.

It is probable, so far as this limited number of observations may show, that sulphonal is a reliable hypnotic in the majority of quiet or mildly agitated cases of insanity; that motor excitement impairs its action; that the dose is variable, especially in women, and should be graduated to suit the individual; that in persons of average strength ten grains for women or fifteen for men are not excessive initial doses; that disagreeable symptoms may follow twenty grains in women or thirty grains in men and that amounts much beyond thirty grains are of doubtful utility.

STATE *versus* COUNTY CARE.*

A hearing upon the bill prepared by the State Charities Aid Association, and introduced into the Senate by Senator Fassett, and into the Assembly by Assemblyman Acker, providing for the removal of the insane and indigent poor from the poor-houses and so-called county insane asylums was had before the Assembly Committee on State Charitable Institutions, Hon. John C. Adams, Chairman, on Wednesday, March 12th, 1890.

The following gentlemen and ladies appeared before the committee: Prof. Charles F. Chandler, Miss Louisa Lee Schuyler, Mrs. L. M. Hoyt and Mr. J. H. Finley, representing the State Charities Aid Association; the Lieutenant-Governor of the State; the State Commissioners in Lunacy, Dr. Carlos F. MacDonald, Hon. Goodwin Brown and Hon. Henry A. Reeves; the Hon. Oscar Craig and Mr. J. H. Van Antwerp, representing the State Board of Charities; Dr. Samuel B. Ward and Dr. M. J. Lewi, representing the Medical Society of the State of New York; Dr. H. M. Paine, representing the State Homœopathic Society; the Superintendents of the Buffalo, Willard, and Ogdensburg Asylums; Hon. H. J. Mead, Mr. F. J. Blackman, Mr. John R. Washburn, Hon. G. W. Green, Hon. John C. Davies, Mr. Coman, C. M. Woolson and A. J. B. Ross, representing different Boards of Supervisors and Superintendents of the Poor throughout the State.

The Chair announced that an hour and a half would be allotted to the proponents of the bill, and a like time to those present to oppose it; and that fifteen minutes would be permitted Prof. Chandler for the opening of the argument in favor of the measure. Following are the remarks of Prof. Chandler:

Mr. Chairman: I appear here to-day to represent the State Charities Aid Association of this State, which is an Association about eighteen years old, and which numbers nearly twelve hundred members, among them distinguished members of the medical profession, the clergy, some of the leading lawyers of the State, and a great many public spirited citizens who have been willing for the past eighteen years to devote their time and money for the improvement of their fellow-men. The objects of this Association, as set forth in the act, by which it was created by the Legislature of the State of New York, is the improvement of the mental, moral and physical condition of the inmates of the charitable institutions of the State, and in particular, of the inmates of State institutions, county poor-houses and city alms-houses. This Association has visited almost every county in the State. These visitors are appointed by the Judges of the Supreme Court under an act of the Legislature in 1881. It has been said that the members of this State Charities Aid Association are very well-meaning persons, but that they have very little practical knowledge of the subject at issue, particularly when compared with the Superintendents of Poor-houses and Boards of Supervisors of counties. I wish to say in answer that the county visitors of this Association derive their knowledge of this subject from personal observation, and from continual visitation of these establishments during this entire period of eighteen years. They certainly, therefore, have a much greater familiarity with the subject than can possibly be obtained by most officers in charge of these county institutions during their service of one or two or three years. There is one lady to-day

* A stenographic report of a hearing before the Assembly Committee on State Charitable Institutions in the New York Legislature, March 12, 1890.

present who for eighteen years has visited annually these county poor-houses and insane asylums.

Now, what the Charities Aid Association wishes to accomplish by this bill is the improvement of the condition of the pauper and indigent insane. We want to have these unfortunate persons placed under such conditions that the greatest possible improvement of their state can be brought about, and that such of them as are curable may be cured. Insanity is a disease; that is the fundamental principle on which the Association has attacked this subject.

It was the medical profession that investigated this subject and brought about the proper understanding of insanity, by the careful study of the symptoms of the disease and by dissections of the brains of the unfortunate insane, and there are two persons in particular to whom we are indebted for the progress in methods of caring and treating this class. One was Pinel, of France, who had an institution near Paris, and Dr. Tuke, who cared for the insane in an institution near York, in England. Both of these distinguished men began the work of reform in the treatment of the insane at about the same time, 1792.

Now, there has been an arbitrary classification in this State of the insane into acute or curable insane, and chronic or incurable insane. There is no logical foundation for any such classification. It is never possible to say when an insane person is curable, nor when he is not curable. No one can say that a given person cannot be cured, and we ought never to relax or discontinue our efforts to bring about an improvement in these darkened minds. It is clearly established to the satisfaction of all persons who have ever studied this subject that insanity is a disease, and that the insane person must be treated as an invalid; that is, he must be given the best kind of treatment; he must be placed under quiet and soothing influences; he must be restrained as little as is compatible with the symptoms of his disease, and all these results must be applied in a curative institution. Now all this can best be accomplished in institutions where there are specialists; where there are well-educated physicians, who know about insanity, and good nurses, who know how to properly care for the insane. No two cases of insanity are alike, and no one, who is not especially experienced in this field, can give the insane proper care. Proper classification is necessary; the violent must be separated from the mild and quiet cases; adequate accommodations must be furnished, and proper attendance.

This is the basis on which the members of this Association have moved in the matter. We find 2,250, according to the report of the State Board of Charities, or 2,233, according to the report of the State Commission in Lunacy, insane paupers now cared for in county poor-houses. Those are the persons we are working for. We are trying to get them out of these poor-houses, and give them a chance to recover; give them proper treatment, for we do not believe that in these places they receive proper treatment. The bill which this Association has drawn up under proper advice is the one which is before you. It is based upon the observations made by the visiting committees of the State Charities Aid Association, after consultation with leading members of the medical profession, and especially with those physicians who have made a study of insanity. It was drawn up by Prof. Dwight, of the Columbia Law School, and has had the careful supervision of a number of distinguished lawyers.

The State Board of Charities appointed in 1888 a committee on the insane, of which the Hon. Oscar Craig was chairman. This committee visited all of the poor-houses and all the so-called asylums attached to the poor-houses in the State, and they made a report upon these institutions last year, and, if the State Charities Aid Association needs anything to confirm its statements it is to be found in this report. Mr. Craig and his committee visited these establishments, and their views are to be found in this report, and I could not do better than advise the members of this committee to read the report of this Committee and see just what Mr. Craig and his colleagues found.

In 1889, the Legislature established the State Commission in Lunacy, consisting of three members. Dr. Carlos MacDonald, who is one of the most distinguished alienists in the country, is the chairman, and Mr. Goodwin

Brown and Mr. Henry Reeves are the other members. This commission visited all of these poor-house asylums in the State, and they have just written a report upon them, and I cannot conceive how it is possible for any intelligent person to read that report and doubt the urgent necessity of passing this bill at the present session of the Legislature. At the close of their report, these Commissioners made a series of recommendations, embodying the provisions of this bill.

With a few trifling modifications, made to conform to the recommendations of the Commissioners in Lunacy, our bill is the same as last year. The first and second sections provide that the State shall be divided into districts; section three authorizes the Commission in Lunacy to cause the removal from the county poor-houses of these 2,200 persons to the State Asylums; section four states how they shall be provided for; in inexpensive buildings; no large expensive buildings, but small buildings, to accommodate from ten to one hundred and fifty patients each, and on the colony plan. The expenditure per capita is not to exceed \$550 for each insane person to be accommodated. Last year it was \$400, but this limited the expenditures to the building alone, and the Commissioners in Lunacy have intimated to us that it would be better to include in the amount the expenditures for accessories, and so this bill includes all expenditures for heating, lighting, ventilation, whereas, the bill of last year did not provide for anything but the buildings and furniture. Section five provides that the State asylums of each district, after the State shall have been districted, shall receive the pauper and indigent insane of the district whether acute or chronic; that means that the 2,200 pauper insane are to be taken out of the poor-houses and put into State asylums, and that, hereafter, none shall be received into these poor-houses. Section six provides for the method of sending patients to asylums, and recites that in all cases there shall be provided a female attendant for every female patient, unless she be accompanied by her husband, father, brother or son. After said patient has been delivered to the authorities of such asylum, the care and custody of the county authorities over said insane persons shall cease. Section seven provides that after sufficient accommodations have been provided in State institutions for all the pauper and indigent insane of all the counties of the State, the expense of the custody, care, maintenance, treatment and clothing of the pauper and indigent insane patients in State asylums shall not be a charge upon any county, but the cost of the same shall be paid out of the funds provided by the State for the care of the insane. The insane are the wards of the State, and we believe they should all be cared for by the State. Sections eight and nine provide for transferring patients from one asylum to another in case of over-crowding, and it also provides that in case the friends of any particular patient desire to obtain for him homœopathic treatment, that the patient may be sent to the Middletown Asylum, which is maintained on homœopathic principles, so that those who prefer that method of treatment may have their preference. Section ten provides for the erection of additional buildings, when necessary. Section twelve requires the State Commission in Lunacy to furnish the Comptroller with estimates for probable accommodations to be required from time to time. Section thirteen exempts New York, Kings and Monroe from the provisions of this act, as they have adequate accommodations for their own insane. Section fourteen, however, authorizes New York, Kings and Monroe Counties to come under the provisions of this act if they prefer to do so, the details to be left with the Board established by this act. Section fifteen defines the word insane. Section sixteen revokes the exemption of all counties from the operation of the Willard act. Section seventeen prevents the return of the insane to county institutions. Section eighteen provides that there shall be no interference with the powers of the Supreme Court. Section nineteen provides for the payment of the traveling and all incidental expenses of the Board. Section nineteen provides for the repeal of statutes inconsistent with the provisions of this bill.

There is no appropriation for the erection of buildings. That must be left for subsequent legislation. This bill provides for the establishment of a principle that the State is bound to care for the insane as the wards of the State.

The Supreme Court now takes care of their property, and we claim that it is the duty of the State to take care of their persons, and take the best possible care of them.

Now, as to the objections to the present system. In the first place, poor-house keepers, as a rule, are entirely ignorant of the needs of the insane. Without intending to reflect on the poor-house keepers as men or citizens, I am justified in saying that they are not selected with a view to any skill or experience in the care or treatment of the insane, and are, in no wise, qualified for it. The salary given them is small, and it is absolutely impossible by any such salary, to secure the services of any person of experience or training, particularly with the frequent changes in management. An intelligent man might become fitted for the work after a number of years of service in this capacity, but these men are not allowed to stay long enough.

In regard to medical attendance, with two exceptions, there are no resident physicians attached to these so-called county institutions in the State. They let out the medical attendance to the lowest bidder. Some physicians agree for one hundred dollars a year to take care of all the paupers and lunatics. In one case they pay but seventy-five dollars a year, and the physician is required to go twice a week and furnish the medicines. In some cases he gets a dollar or two for each visit, and has to furnish his own medicine. In no case is a specialist employed in any of these county institutions. The attending physicians are, in nearly every case, recent graduates. I have been, for twenty-five years, a professor in a medical college, and I know how much a man knows who has spent five months or two years in a medical school; and I say that to put such a man in charge of two or three hundred lunatics is a proceeding that would be most ridiculous, if it were not so dangerous. In the case of a lawyer, we know that for the first two or three years succeeding his admission to the bar, he tries nothing but the simplest causes, and that it is only after several years of practice that he undertakes cases involving interests of any magnitude, while the physician may, in his first visit be called upon to see one of the most complicated cases that would ever come in his experience. And this class of physicians takes care of these insane. These county institutions have no case-books, in which the individualities of each patient are recorded, as required by law. They leave the medicines with the attendants, and these attendants oftentimes are other lunatics. In one case, officially reported, a bottle of medicine was given by a lunatic to another, who, in turn, administered it to the patient, and afterwards gave it to two or three others to whom he thought it might be useful, and when you remember the kind of medicines which are administered, these hypnotics, these sedatives, you must admit that such methods as these are one hundred years behind the age.

It is assumed that all the insane are incurable, and that they have got to get along the best way they can. These institutions have no methods of classification, and violent patients are allowed constantly to mingle with mild patients; the coarse and the vulgar associate with the more refined; the sexes are hardly kept apart in some poor-houses, and, again, they have to associate with paupers, with tramps and vagabonds, and it has a bad influence on the paupers; it is just as bad for the persons not insane to associate with the insane, as for the insane to associate with a class of persons ordinarily sent to the poor-houses. They have no attendants, trained for this work. They have other duties; they work in the kitchen and laundry, and only devote a portion of their time to the insane. The insane are locked into a room at night, and such a room as it is. Mr. Craig can tell you what he has seen in these rooms when they have been opened in the morning.

The CHAIRMAN. Are not the patients in the State asylums locked in their rooms at night?

Prof. CHANDLER. They are, but the attendants are always near them.

This course, while good enough for the paupers, perhaps, who won't work, is not a correct one with regard to the sick. There is not sufficient clothing supplied to the inmates of these asylums, and in one institution containing a great many patients, only one was found to have sufficient underclothing; they have filthy surroundings, companionship with filthy people; several are made to bathe in the same water for the purpose of economizing the water; most of

Brown and Mr. Henry Reeves are the other members. This commission visited all of these poor-house asylums in the State, and they have just written a report upon them, and I cannot conceive how it is possible for any intelligent person to read that report and doubt the urgent necessity of passing this bill at the present session of the Legislature. At the close of their report, these Commissioners made a series of recommendations, embodying the provisions of this bill.

With a few trifling modifications, made to conform to the recommendations of the Commissioners in Lunacy, our bill is the same as last year. The first and second sections provide that the State shall be divided into districts; section three authorizes the Commission in Lunacy to cause the removal from the county poor-houses of these 2,200 persons to the State Asylums; section four states how they shall be provided for; in inexpensive buildings; no large expensive buildings, but small buildings, to accommodate from ten to one hundred and fifty patients each, and on the colony plan. The expenditure per capita is not to exceed \$550 for each insane person to be accommodated. Last year it was \$400, but this limited the expenditures to the building alone, and the Commissioners in Lunacy have intimated to us that it would be better to include in the amount the expenditures for accessories, and so this bill includes all expenditures for heating, lighting, ventilation, whereas, the bill of last year did not provide for anything but the buildings and furniture. Section five provides that the State asylums of each district, after the State shall have been districted, shall receive the pauper and indigent insane of the district whether acute or chronic; that means that the 2,200 pauper insane are to be taken out of the poor-houses and put into State asylums, and that, hereafter, none shall be received into these poor-houses. Section six provides for the method of sending patients to asylums, and recites that in all cases there shall be provided a female attendant for every female patient, unless she be accompanied by her husband, father, brother or son. After said patient has been delivered to the authorities of such asylum, the care and custody of the county authorities over said insane persons shall cease. Section seven provides that after sufficient accommodations have been provided in State institutions for all the pauper and indigent insane of all the counties of the State, the expense of the custody, care, maintenance, treatment and clothing of the pauper and indigent insane patients in State asylums shall not be a charge upon any county, but the cost of the same shall be paid out of the funds provided by the State for the care of the insane. The insane are the wards of the State, and we believe they should all be cared for by the State. Sections eight and nine provide for transferring patients from one asylum to another in case of over-crowding, and it also provides that in case the friends of any particular patient desire to obtain for him homœopathic treatment, that the patient may be sent to the Middletown Asylum, which is maintained on homœopathic principles, so that those who prefer that method of treatment may have their preference. Section ten provides for the erection of additional buildings, when necessary. Section twelve requires the State Commission in Lunacy to furnish the Comptroller with estimates for probable accommodations to be required from time to time. Section thirteen exempts New York, Kings and Monroe from the provisions of this act, as they have adequate accommodations for their own insane. Section fourteen, however, authorizes New York, Kings and Monroe Counties to come under the provisions of this act if they prefer to do so, the details to be left with the Board established by this act. Section fifteen defines the word insane. Section sixteen revokes the exemption of all counties from the operation of the Willard act. Section seventeen prevents the return of the insane to county institutions. Section eighteen provides that there shall be no interference with the powers of the Supreme Court. Section nineteen provides for the payment of the traveling and all incidental expenses of the Board. Section nineteen provides for the repeal of statutes inconsistent with the provisions of this bill.

There is no appropriation for the erection of buildings. That must be left for subsequent legislation. This bill provides for the establishment of a principle that the State is bound to care for the insane as the wards of the State.

The Supreme Court now takes care of their property, and we claim that it is the duty of the State to take care of their persons, and take the best possible care of them.

Now, as to the objections to the present system. In the first place, poor-house keepers, as a rule, are entirely ignorant of the needs of the insane. Without intending to reflect on the poor-house keepers as men or citizens, I am justified in saying that they are not selected with a view to any skill or experience in the care or treatment of the insane, and are, in no wise, qualified for it. The salary given them is small, and it is absolutely impossible by any such salary, to secure the services of any person of experience or training, particularly with the frequent changes in management. An intelligent man might become fitted for the work after a number of years of service in this capacity, but these men are not allowed to stay long enough.

In regard to medical attendance, with two exceptions, there are no resident physicians attached to these so-called county institutions in the State. They let out the medical attendance to the lowest bidder. Some physicians agree for one hundred dollars a year to take care of all the paupers and lunatics. In one case they pay but seventy-five dollars a year, and the physician is required to go twice a week and furnish the medicines. In some cases he gets a dollar or two for each visit, and has to furnish his own medicine. In no case is a specialist employed in any of these county institutions. The attending physicians are, in nearly every case, recent graduates. I have been, for twenty-five years, a professor in a medical college, and I know how much a man knows who has spent five months or two years in a medical school; and I say that to put such a man in charge of two or three hundred lunatics is a proceeding that would be most ridiculous, if it were not so dangerous. In the case of a lawyer, we know that for the first two or three years succeeding his admission to the bar, he tries nothing but the simplest causes, and that it is only after several years of practice that he undertakes cases involving interests of any magnitude, while the physician may, in his first visit be called upon to see one of the most complicated cases that would ever come in his experience. And this class of physicians takes care of these insane. These county institutions have no case-books, in which the individualities of each patient are recorded, as required by law. They leave the medicines with the attendants, and these attendants oftentimes are other lunatics. In one case, officially reported, a bottle of medicine was given by a lunatic to another, who, in turn, administered it to the patient, and afterwards gave it to two or three others to whom he thought it might be useful, and when you remember the kind of medicines which are administered, these hypnotics, these sedatives, you must admit that such methods as these are one hundred years behind the age.

It is assumed that all the insane are incurable, and that they have got to get along the best way they can. These institutions have no methods of classification, and violent patients are allowed constantly to mingle with mild patients; the coarse and the vulgar associate with the more refined; the sexes are hardly kept apart in some poor-houses, and, again, they have to associate with paupers, with tramps and vagabonds, and it has a bad influence on the paupers; it is just as bad for the persons not insane to associate with the insane, as for the insane to associate with a class of persons ordinarily sent to the poor-houses. They have no attendants, trained for this work. They have other duties; they work in the kitchen and laundry, and only devote a portion of their time to the insane. The insane are locked into a room at night, and such a room as it is. Mr. Craig can tell you what he has seen in these rooms when they have been opened in the morning.

The CHAIRMAN. Are not the patients in the State asylums locked in their rooms at night?

Prof. CHANDLER. They are, but the attendants are always near them.

This course, while good enough for the paupers, perhaps, who won't work, is not a correct one with regard to the sick. There is not sufficient clothing supplied to the inmates of these asylums, and in one institution containing a great many patients, only one was found to have sufficient underclothing; they have filthy surroundings, companionship with filthy people; several are made to bathe in the same water for the purpose of economizing the water; most of

them, for want of room, have to put beds in the bath-room, and in one case five of them were found locked up in a bath-room together; there is a lack of employment except in some cases where they are taken out upon the farm. No exercise. No diversion.

There is no economy in this. If this system is carried to its logical sequence, there is no economy, it will be found, in managing sixty different institutions for the insane in the State. The economy is in bringing these people under one successful management.

These facts I have derived from the reports of our own visitors, from the reports of visiting committee of the insane of the State Board of Charities or from the reports of the Commissioners in Lunacy.

The State institutions have a much larger number of patients, and have all administrative requirements; supervision under one management is less expensive; the standard of care is based on the real needs of the patients, and is fixed and stable. It is not regulated by persons who are not specialists, and the insane can be properly classified. This is one of the most powerful objections to the county system, the lack of facilities for classification. In State institutions cleanliness and the best curative results can be secured. All the patients are under the care of physicians who make the subject of insanity a specialty, their life-work, and to assist them they have trained attendants. There are seven State asylums and three large county asylums. Every one has a man at its head who makes this subject his life-work. He is a specialist and he has a staff of assistants that he has trained.

The insane are confined for two reasons. First for remedial purposes: Second, to protect them and others from their irresponsible violence. Both results can be best accomplished in State institutions, and there is no logic in that classification that sends a certain class to State asylums and another class to county asylums. The State introduced the principle of State care for all of the insane in 1865, but the difficulty was that sufficient accommodations were not provided for all classes in the State asylums by the Legislature, and after a time these counties were exempted.

State care for the insane is now in successful operation in the States of Ohio, Illinois, Kansas, Minnesota and Mississippi, and even the two young States of Dakota have adopted the principle of State care.

Certain objections are made to this bill. The first is that it is cruel to take the insane pauper out of his own territory away from his affectionate relatives, and that he is much happier when he is among his friends. That matter our visitors and others have looked into, and they say that, in the majority of cases, it is just as near to the State asylum as to the county institution, and that, in almost every case, the State asylum, being on a line of railroad, is more accessible than the poor-house farm, and that there is no legitimate foundation whatever for any such objection; and if the friends of the patient are really affectionate, they certainly would much prefer to have him taken to the hospital, where he can be cared for properly, even though it be a little more distant. These institutions, as I say, are more accessible, and the friends can know that the patient is receiving the best possible treatment, and can see him at any time. Another objection is that it is a blow at local self-government. This is too puerile an argument to be discussed. It is as much self-government for these unfortunates to have the State care for them as to have the counties care for them.

Another argument upon which a great deal of stress has been laid, is, that it would be very unjust to the nineteen exempted counties, after spending enormous sums of money to provide buildings, to take away their insane and leave these buildings empty.

We have investigated every county with regard to this subject. It is true large sums of money have been expended in the erection of buildings, but these buildings are not worth anywhere near the sums paid for them. The present valuation of the buildings is very small, and in almost every case, they are needed for the paupers, or can be made use of as hospitals.

Another objection is that the State system involves the herding of the insane together. Now the very intention of this bill is to classify the insane, and put them into small colonies. The bill provides for buildings to accommodate

from ten to one hundred and fifty patients each; it is a colony system; just the reverse of any herding system; it classifies them by putting them into small buildings. The expense of these small buildings, it is said, is going to be enormous. Now we find that there is room in the present State asylums, that they have accommodations there now, or accommodations in course of preparation for a great many patients, and that by the time this bill will be ready for operation, it will only be necessary to provide for a portion of these 2,200 patients by the erection of additional buildings. For instance, there are at the present time 2,230 to be provided for. By the first of October, 1891, the time these accommodations will be ready to receive patients, the existing State asylums can take care of 1,200 of the number; that leaves 1,033 to be provided for by the erection of additional buildings, and there will be 130 additional cases who will become insane before that time, so that we may say in round numbers that 1,100 patients must be provided for by the first of October, 1891. Assuming the real figures to be 1,133, which is as accurate as it can be made to-day, the maximum cost of buildings for this number, at a per capita of \$550, will be \$639,000. We are safe in saying that there is no reason to believe that it will cost over \$700,000 to provide adequate accommodations for the pauper insane at the State asylums.

As for maintenance, I won't go into lengthy argument on that subject. I will say that I believe that the people of New York will not begrudge whatever it will cost to give the pauper insane whatever is necessary and essential for their welfare. In some of the counties they say that they are able to keep this class for \$1.06 a week. If that is true, then all that I have to say is that these people ought to be ashamed of themselves. But there is a fictitious difference established by this fact. The county poor-houses now send all the expensive patients to the State asylums; all violent, all dangerous, all incapacitated for work, and the cost of caring for them is put upon the State. They keep back in the county poor-houses all able-bodied patients to work on the farm like cart-horses, performing work for the ordinary paupers. I don't think that the people of New York want to have their insane let out on a farm as cart-horses, working for the comfort of the paupers. Besides all this, the State asylums can keep the insane much cheaper than the county asylums, and I would blush for any man who would begrudge the money necessary for the proper care of the pauper insane, or who would begrudge them every chance for improvement and cure. It is important to know one feature of this bill. That if it is passed no county will have any local charges for the insane. The bill provides that every expenditure for housing, clothing and keeping them will come out of State tax. At present the counties assume all these expenditures; in future, they will have no board bills to pay, and no expenses for this class whatever.

Who endorses this plan? We naturally lean upon the medical profession. This is within their province; it is their business to tell us how the insane should be treated. What medical bodies support the provisions of this bill? The Neurological Society of the State of New York passed the strongest resolutions endorsing this bill. The New York Medical Society passed unanimous resolutions last year favoring it, and have done the like this year. The New York Academy of Medicine endorses this bill. The Association of Superintendents of American Institutions for the Insane passed resolutions strongly endorsing it, and only the other day the State Homeopathic Society passed strong resolutions favoring the measure. As far back as 1881, the State Board of Charities endorsed this proposition. The late Dr. Anderson, President of Rochester University, and for thirteen years a member of the State Board of Charities, wrote, as the last act of his life, an admirable letter supporting this bill, from which I quote: "If given the same humane and proper treatment, county care would cost more than State care. Thirteen years' experience on the State Board of Charities has led me to the decided conviction that the interest of the State, as well as every consideration of benevolence, should lead our Legislature to abolish the present county system and replace it by a comprehensive State system, of which the institution at Ovid serves as a worthy and successful illustration."

We have consulted with all the physicians in charge of State asylums, and

they all agree to the propriety of this bill. Dr. Judson B. Andrews, Superintendent of the State Asylum at Buffalo, wrote an admirable article for the *AMERICAN JOURNAL OF INSANITY* on this subject, in which he endorsed the proposition thoroughly. Even the superintendents of the poor at one time were in favor of this, and at their convention in 1855 passed these resolutions:

"Resolved, That the State should make ample and suitable provision for all of its insane not in a condition to reside in private families.

Resolved, That no insane person should be treated or in any way taken care of in any county poor-house, or alms-house, or other receptacle provided for in which paupers are maintained or supported."

To-day the superintendent of the poor of Albany County, Mr. McKenna; of Oneida County, Mr. Evans; of Onondaga County, Mr. Grimes; of Schenectady County, Mr. Walton; of Suffolk County, Mr. Wells, are of the same opinion, and they urge us on. The supervisors of Columbia, Delaware and Schenectady Counties have passed resolutions in favor of this measure. I have in my hand a report made to the Board of Supervisors of Otsego County by a committee charged with the examination of this subject, with instructions to report as to the advisability of caring for the chronic pauper and indigent insane of that county by the erection of special buildings upon the poor-house farm. I quote for you from the report of that committee.

Your committee consider that it would be difficult if not impossible to give these persons at the poor-house the same kind of care, comfort and medical attendance which they would receive at the asylums for double the price paid them.

The whole press is with us with hardly an exception. In fact, it would take more time than properly belongs to me if I should attempt even to name the newspapers that have printed articles in favor of this measure. All over this State they have taken up the subject; not in this State alone, but in other States. The *Courier-Journal* of Louisville, has written strongly in favor of this measure. Last year, we took the trouble to collect names of persons favoring this measure and we had petitions from forty-eight counties. We hardly thought this worth while this year, as our bill is the same as that of last year.

Now, who objects to this bill? Who are the men who are giving their time; spending week after week lobbying against this bill? They are the superintendents of the poor. Why are they interested in the matter? I cannot understand what interest they have in opposing the best advice of the medical profession and those persons who have made a specialty of the subject. Why do they come here? There is no legitimate reason for their being here. They make a certain amount of political and perhaps another kind of capital by keeping these 2,200 pauper insane in misery. They don't give any philanthropic reason for their opposition to this measure.

It seems to me curious that this State should hesitate about giving these poor creatures a chance to get well; should hesitate on this subject simply because the men appointed for three years as superintendents of the poor urge against this bill. It is true some superintendents are against it. They may think they can do better than the State can do for the insane, but I must say it strikes me as a man of common sense and intelligence that it is a very suspicious circumstance—the opposition to this bill. It is not a legitimate opposition.

These are the points I wish to call the attention of the members of the Committee to in connection with this proposed legislation.

The Chairman announced that the first speaker in opposition to the proposed measure would be Mr. A. J. B. Ross, as representative of the Superintendents of the Poor of the State.

Mr. Ross. If it please you, Mr. Chairman and Gentlemen of this Committee, I represent the superintendents of the poor of the State of New York, representatives of every board of supervisors of the State of New York, who wished to attend, members of all institutions for the care of the unfortunates, and all other persons who come recognized as members of what is called the Convention of Superintendents of the Poor.

I will state that I am not a superintendent of the poor; I am not a

representative of any county which has an asylum or which is exempted, but as one of the committee appointed by that convention, composed of practical men, who understand the condition of this class whose care they have had for the past twenty years: superintendents of the poor, who, by unanimous resolutions passed at their last convention, have sent a committee to take charge of this matter before you, gentlemen, and represent them. Our Chairman, Dr. Holmes of Madison, an able man, who has written many papers on this subject, and who has not only taken his knowledge from reports of others, but from his own practical experience, is unable to be here on account of sickness, and mine being the second name on that committee I come as the representative of the boards of supervisors. I will say, however, a few words with the limited knowledge of this subject that I have attained, for like Prof. Chandler, if I understand him rightly, I have not much practical knowledge of this subject. I have never visited many of the county institutions or poor-houses, but I have some of them, for I have been in this work for the past four or five years, because I am interested in these poor people, and in their relatives, who don't wish them taken off and shut up in what they are calling colony institutions, but which really are places of two or three thousand inmates. The convention of superintendents of the poor as I have stated, is composed of a body of practical men, men not elected for two or three years only, but many of them elected for a series of years. There is one here to-day who has been in office thirty-seven years, and he must be held to know far more of these asylums than this professor who has never visited one of them. There is another man here who has been a superintendent of the poor for eighteen years and many others who have been in the work, fourteen, fifteen and sixteen years, and they certainly know something of the subject.

If I understood the last speaker, he referred to the reports of the State Board of Charities, in 1881 and in 1888. It is my pleasure to present to you the report of the State Board of Charities for this year, particularly because they are a board composed of men, who for many years have made it their practical business to go into these asylums to study this subject, to know about it. They have been devoting their time to these matters, and have discussed this question for many years. Now they come out against this bill, against this "herding" as they call it, and I will state that it is a pleasure to us to know that the estimable lady on the board, who has given her whole life to this work is strongly with us to-day from her personal practical knowledge of the whole question derived from her visitations, not for a few months but for years and years. I think there are some on the board, Dr. Craig among them, who still stand out against this mixed system, but I will read for you the official statement of the board:

"Truly, it is needful, on the ground of necessity, to spend a million or more on one vast building, its furniture and other accessories to accommodate patients at quadruple cost or about \$2,500 for each insane person committed to it, merely to gratify local or official pride. The investigations of philanthropists and the experience of alienists in Europe, and of those of the highest type and attainments in our own country now condemn the herding together of large numbers of those afflicted with insanity. They are not insensible to their enforced associations, when confined, as in a prison, and it has been found that the best results and treatment, to say nothing of cures, are obtained in smaller, separate and inexpensive buildings, capable of a larger range of classification of the different cases of mental aberration and affording more intimate acquaintance and observation of their patients, by the medical and other attendants, and also securing greater individual safety of the insane inmates, than can be had in great buildings of prison-like structure, even of stately external grandeur."

Now it is right for us to take what our committee and officers appointed for this purpose say, and I for one with the limited opportunity of practical knowledge of what is done in these asylums, am ready to take the statement of the State Board of Charities for what is best for this class of insane.

I think if the question of State asylum building were understood in all its enormity, there would perhaps not be so pronounced an attempt made in their further erection. If I understand rightly there are fifteen or sixteen thousand

they all agree to the propriety of this bill. Dr. Judson B. Andrews, Superintendent of the State Asylum at Buffalo, wrote an admirable article for the *AMERICAN JOURNAL OF INSANITY* on this subject, in which he endorsed the proposition thoroughly. Even the superintendents of the poor at one time were in favor of this, and at their convention in 1855 passed these resolutions:

Resolved, That the State should make ample and suitable provision for all of its insane not in a condition to reside in private families.

Resolved, That no insane person should be treated or in any way taken care of in any county poor-house, or alms-house, or other receptacle provided for in which paupers are maintained or supported."

To-day the superintendent of the poor of Albany County, Mr. McKenna; of Oneida County, Mr. Evans; of Onondaga County, Mr. Grimes; of Schenectady County, Mr. Walton; of Suffolk County, Mr. Wells, are of the same opinion, and they urge us on. The supervisors of Columbia, Delaware and Schenectady Counties have passed resolutions in favor of this measure. I have in my hand a report made to the Board of Supervisors of Otsego County by a committee charged with the examination of this subject, with instructions to report as to the advisability of caring for the chronic pauper and indigent insane of that county by the erection of special buildings upon the poor-house farm. I quote for you from the report of that committee.

Your committee consider that it would be difficult if not impossible to give these persons at the poor-house the same kind of care, comfort and medical attendance which they would receive at the asylums for double the price paid them.

The whole press is with us with hardly an exception. In fact, it would take more time than properly belongs to me if I should attempt even to name the newspapers that have printed articles in favor of this measure. All over this State they have taken up the subject; not in this State alone, but in other States. The *Courier-Journal* of Louisville, has written strongly in favor of this measure. Last year, we took the trouble to collect names of persons favoring this measure and we had petitions from forty-eight counties. We hardly thought this worth while this year, as our bill is the same as that of last year.

Now, who objects to this bill? Who are the men who are giving their time; spending week after week lobbying against this bill? They are the superintendents of the poor. Why are they interested in the matter? I cannot understand what interest they have in opposing the best advice of the medical profession and those persons who have made a specialty of the subject. Why do they come here? There is no legitimate reason for their being here. They make a certain amount of political and perhaps another kind of capital by keeping these 2,200 pauper insane in misery. They don't give any philanthropic reason for their opposition to this measure.

It seems to me curious that this State should hesitate about giving these poor creatures a chance to get well; should hesitate on this subject simply because the men appointed for three years as superintendents of the poor urge against this bill. It is true some superintendents are against it. They may think they can do better than the State can do for the insane, but I must say it strikes me as a man of common sense and intelligence that it is a very suspicious circumstance—the opposition to this bill. It is not a legitimate opposition.

These are the points I wish to call the attention of the members of the Committee to in connection with this proposed legislation.

The Chairman announced that the first speaker in opposition to the proposed measure would be Mr. A. J. B. Ross, as representative of the Superintendents of the Poor of the State.

Mr. Ross. If it please you, Mr. Chairman and Gentlemen of this Committee, I represent the superintendents of the poor of the State of New York, representatives of every board of supervisors of the State of New York, who wished to attend, members of all institutions for the care of the unfortunates, and all other persons who come recognized as members of what is called the Convention of Superintendents of the Poor.

I will state that I am not a superintendent of the poor; I am not a

representative of any county which has an asylum or which is exempted, but as one of the committee appointed by that convention, composed of practical men, who understand the condition of this class whose care they have had for the past twenty years: superintendents of the poor, who, by unanimous resolutions passed at their last convention, have sent a committee to take charge of this matter before you, gentlemen, and represent them. Our Chairman, Dr. Holmes of Madison, an able man, who has written many papers on this subject, and who has not only taken his knowledge from reports of others, but from his own practical experience, is unable to be here on account of sickness, and mine being the second name on that committee I come as the representative of the boards of supervisors. I will say, however, a few words with the limited knowledge of this subject that I have attained, for like Prof. Chandler, if I understand him rightly, I have not much practical knowledge of this subject. I have never visited many of the county institutions or poor-houses, but I have some of them, for I have been in this work for the past four or five years, because I am interested in these poor people, and in their relatives, who don't wish them taken off and shut up in what they are calling colony institutions, but which really are places of two or three thousand inmates. The convention of superintendents of the poor as I have stated, is composed of a body of practical men, men not elected for two or three years only, but many of them elected for a series of years. There is one here to-day who has been in office thirty-seven years, and he must be held to know far more of these asylums than this professor who has never visited one of them. There is another man here who has been a superintendent of the poor for eighteen years and many others who have been in the work, fourteen, fifteen and sixteen years, and they certainly know something of the subject.

If I understood the last speaker, he referred to the reports of the State Board of Charities, in 1881 and in 1888. It is my pleasure to present to you the report of the State Board of Charities for this year, particularly because they are a board composed of men, who for many years have made it their practical business to go into these asylums to study this subject, to know about it. They have been devoting their time to these matters, and have discussed this question for many years. Now they come out against this bill, against this "herding" as they call it, and I will state that it is a pleasure to us to know that the estimable lady on the board, who has given her whole life to this work is strongly with us to-day from her personal practical knowledge of the whole question derived from her visitations, not for a few months but for years and years. I think there are some on the board, Dr. Craig among them, who still stand out against this mixed system, but I will read for you the official statement of the board:

"Truly, it is needful, on the ground of necessity, to spend a million or more on one vast building, its furniture and other accessories to accommodate patients at quadruple cost or about \$2,500 for each insane person committed to it, merely to gratify local or official pride. The investigations of philanthropists and the experience of alienists in Europe, and of those of the highest type and attainments in our own country now condemn the herding together of large numbers of those afflicted with insanity. They are not insensible to their enforced associations, when confined, as in a prison, and it has been found that the best results and treatment, to say nothing of cures, are obtained in smaller, separate and inexpensive buildings, capable of a larger range of classification of the different cases of mental aberration and affording more intimate acquaintance and observation of their patients, by the medical and other attendants, and also securing greater individual safety of the insane inmates, than can be had in great buildings of prison-like structure, even of stately external grandeur."

Now it is right for us to take what our committee and officers appointed for this purpose say, and I for one with the limited opportunity of practical knowledge of what is done in these asylums, am ready to take the statement of the State Board of Charities for what is best for this class of insane.

I think if the question of State asylum building were understood in all its enormity, there would perhaps not be so pronounced an attempt made in their further erection. If I understand rightly there are fifteen or sixteen thousand

insane in the State, in ordinary asylums, and there is every year an increase of from six to seven hundred. Now, it is the opinion of experienced men that no asylum should hold more than six hundred patients, and if we are to accommodate the whole of the insane in these institutions a new asylum must be built by the State every year. We know that, while population increases in this State at the rate only of eighteen per cent, the increase of insanity amounts to more than sixty-two per cent.

Now, I don't want to take up too much time. The charge has been made that our opposition rests upon pecuniary grounds. I deny it, absolutely. The objections which we have are based simply first and foremost and altogether upon the interests of the unfortunate person who has lost his reason, and is dependent on our care, and I say when you take him away from his own county and from among his friends who cannot afford to go to great distances to visit him at the State asylums, and where he is put in long corridors filled with patients herded together, brought together from all parts of the country, that he feels that he is lost to his friends. We all know that almost every insane person has certain lucid intervals. In these lucid intervals, he comes to himself in perfect despair. Everything about him is strange; he hasn't even a postage stamp by which he is able to correspond with his friends. He is shut up with two or three persons at night; he does not see his friends because they cannot afford to come there to see him, but I assert that his friends want to know what is done with him, and they want to have him near enough to them so that they can be permitted to see him as often as they feel like it. I claim that abuses will be more readily found out, more readily corrected at these county institutions than if the patient were put into these big State asylums. Now, they bring up isolated cases of abuse in county institutions, but not one in the State asylums. In the Willard Asylum for 2,000 insane, they say there has never been a case of oppression or wrong. I don't believe it; it is not a possibility. I know and believe that asylum is conducted well; I believe it is a model asylum, as good as any large asylum could be carried on, but when I am told there has never been a case of wrong or oppression for these twenty years, while there has been so much in these county asylums, it is proof to me that the wrongs are more easily found out and more thoroughly corrected in small institutions.

There is a great deal more I would like to say, but I do not desire to occupy the time of more interesting speakers. I have now the honor to introduce to you Hon. J. W. Mead, County Judge of Tioga County.

Judge MEAD. Mr. Chairman and Gentlemen of the Committee: In the short time allotted to speak for Tioga County on this subject, I cannot do justice to the question, and I shall have to take a running course in my remarks. We are here because the board of supervisors of Tioga County appointed a committee, and that committee is here in attendance. They came with the superintendents of the poor of my county and invited me to come here to present what they believe is our side of the case. The principle as applied to Tioga County applies equally well to all those counties caring for their own insane, but the local matters that have been alluded to I am intimate with. The doctor asked the question Who are opposing this bill? and he says the superintendents of the poor, and that is a fact so far as our county is concerned, but those superintendents stand backed by over one hundred and twenty-five names of the best people of Tioga County; the leading names in the bench and bar; by the doctors and by every body that is connected with this asylum in any way, and those disconnected with it, because Tioga has the interest of these unfortunate ones at heart. When the gentleman accuses us of having insufficient clothing, insufficient food and giving insufficient care to this class in our county-houses, we deny the charge. If it is as he states in any other county institution, I say take them away from that county, and the State authorizes the new Commission in Lunacy to do so. The act which exempted our county, passed in 1871, also provided that that same power that gave us authority to erect that asylum in our county could revoke it at any time by providing that upon the order of this exemption board, no insane person, who, in their opinion, was not receiving sufficient care should be retained in this institution but should be sent back to a State asylum.

Of course, they have provided what they believe in Tioga County to be a proper place for these insane, and they will be willing to have every man, woman and child in this room come to inspect that institution. And, instead of saying that we keep insane in our county-house, we assert that it is more properly an asylum, an asylum too where they take better care of this class—statistics show that we discharge from this asylum five to one of those discharged improved from State asylums. In our county asylum, erected under the supervision of the State Board of Charities, we have provided accommodations for sixty persons. They licensed us to keep forty. For those forty we have four attendants, and if there is any State asylum that gives that amount of attendance to the insane to-day, I do not know where it is. They charge it upon us that we don't treat these people as we should. They say that they should have medical attendance. To be sure we do not have that expert attendance they desire, but we have persons selected with reference to some knowledge of nursing and if those people do not render proper services to the insane, the State Commission in Lunacy is given the power to take them to a State asylum at any time. They have the power, under the law, to take any individual case not properly taken care of from us. That asylum has been visited by the State Board of Charities and by the State Commissioner in Lunacy, and has received the highest commendations from time to time, and yet we now have to come under this same category. I believe that we have been misrepresented before you in these charges that have been made against the county asylums. They claim—and I want to touch upon that point, for fear that I may forget it—they claim that any county that can keep its pauper insane for \$1.06 per week does not deserve to have the care of them. Now, I believe, the figures in our county for the year 1888 were \$1.06 per week. Last year it was \$1.38. But you must take into consideration that that is the amount charged back to the separate towns, to the amount raised by tax, that is to be paid by tax for keeping those insane. You must recollect that the county of Tioga has a most fertile farm, although the asylum and the alms-house are both upon it, that there is not an attendant in the alms-house that has anything to do with the asylum; everything is separate. Now, in the county asylum they have the right to keep pay patients, and in the year when the gentleman speaks of the rate being \$1.06, they received almost \$1.00 from pay patients. Now, this sum went towards supporting the pauper inmates of that asylum during that year. I don't want you to think that \$1.06 represents the entire cost of keeping those patients, for the cost is about \$2.52 per week, but if they get a patient at five dollars, the money received from that patient would pay for keeping himself and one of the pauper insane. But that would not be enough to show how the \$1.06 rate appears. Now, in addition to the profit coming to that asylum from those paying patients, there is all the profit of that fertile farm. So if you take it as it is, you will see that we pay about what it costs the county at Willard, from \$2.25 to \$2.50 per week.

But that is not the question. What difference does it make? Tioga doesn't stand here to quibble on the cost. We want to take care of these people ourselves. The State has given us the authority, and we have expended our money, as the other nineteen counties have done, and we do not see why at your hands it should be changed. The State has to-day all the power that this bill proposes to give it, with the exception that they propose to take them out of these county institutions wholesale; even this they have a right to do now, if they choose.

What I want to know is this: If, as has been reported by this commission, these wrongs are committed in county asylums, and these evils exist to-day, why don't they order these insane people out of these asylums? It is in their power, nay, more, it is their duty so to do, and if they have been negligent in their duty, it is not the fault of the counties. If abuses exist, let them correct them. If men don't do their duty, put new men in their places.

Now, we have in that county institution more attendants for the number there, we have more wards for the patients there, and we can show a larger percentage of patients discharged, returned to their friends, a greater ratio of patients recovered than can the State institutions of this character. But I shall not discuss this question further.

The doctor says what these patients need is in the first place kind and gentle treatment. That is just what we claim we are affording. That is the secret of how we discharge more that are helped. Now, as to the attendants, people are selected there from the different parts of the county, so that when a patient is sent to that institution, he is almost sure of finding there some attendant who is either acquainted with him or with his people, or who knows something about him. Now that makes the patient feel at home at once, and aids in his restoration. With the exception of very few cases indeed, no restraint is used. They do work them there, whatever work they see fit to do, and for that reason they are benefited. Of the thirty-seven patients averaged through the year, one-quarter have been pay patients, and eleven have been discharged as benefited. Now, if the proportion is figured out for Tioga County that will follow upon the passage of this bill, according to the lowest estimate for the care of the insane in our county, it will cost \$125,000 per year, and that amount is to be charged back against the people of Tioga County, and the property that they have spent their money for is almost worthless. The learned gentleman said that these buildings could be used for other purposes, but I can tell you that Tioga's buildings would not be worth anything, and that if this amount has got to be charged back upon the people and if, as reported by the State Board of Charities, it is a fact that it costs \$2,500 instead of \$550 for providing buildings for these people, Tioga County will oppose this measure to the last. During a debate on the Assembly floor to-day, the statement was made that the farms of the State had depreciated in value fifty per cent during the past forty years, and twenty-five per cent in the past twenty years. The same depreciation is going on to-day, and when we talk of putting this enormous tax upon the farmers such schemes as these should be resisted by every taxpayer. These individuals are not in any condition financially to justify the expenditure of such a sum of money as has been mentioned here.

Besides, we think we can do better in these county institutions for this particular class of the insane.

One point the doctor makes is that we do not have proper physicians in these county asylums. I submit to you that the physician that we have is a capable man. The physician does not reside in the institution, yet he visits the patients very often, and is always ready to answer the slightest call. Now at the Binghamton Asylum where they have some twelve hundred patients, and attendants, and the superintendent, a man that I admire, went there from Owego, and all the experience he had, he got not in the Tioga Asylum, but in the poor-house of Tioga County, and he becomes an expert on insanity. Now, the opportunities that exist for his personal inspection and treatment of all those insane in this huge institution you can see for yourself, when you remember the number they have there and the time it would be necessary to take to examine each patient. They have never had sufficient force at Binghamton. The fact is that we have just the particular kind of institution in Tioga County that is mentioned in this bill, a small institution. Now, when a person first becomes insane in our county, he is taken to a State hospital, and he stays there until he is pronounced incurable. Then, and not until then, do we assume his care in our home institution. The doctor says there is a question as to any patient being incurable, as to whether such a time ever arrives. They *are* pronounced so, and pronounced so by superintendents of the State asylums, and then they are taken to the county. Now, if they are not proper subjects for us they are taken to the State asylums for the chronic insane; they are ordered to the State asylums by this Commission who have control over them.

I think the question of bathing has been referred back to Tioga County, the bathing of two persons in the same water. On the first visit of the Commissioners in Lunacy, they found that two persons had been bathed in the same water. That matter was investigated, and it was found that it was a fact. On one occasion an attendant, when an inmate required some immediate attention, made use of the water that had previously been used in the bathing of another patient. This was a most trivial thing, when you come to think about it, but they made it just as bad as possible.

It would seem to me that every requirement asked for by this bill is provided for outside of it. If there are wrongs, the authorities have the power to remove the people responsible for them, to do away with them. To say that here we have another scheme for caring for this class—admitting that it may be more beneficial, may be an improvement, is to say at the same time that you are going to throw away the money of these nineteen counties, and are going to appropriate millions from the treasury of this State for a scheme, in my opinion, no better than the present system. These supervisors who come here to oppose this bill are sustained by all the best citizens of our county. There is a sort of feeling among some of our people that a county asylum is not a proper place to go, but that idea is dying out to a certain extent. We have to-day in our county asylum representatives of some of the best families of Tioga County. We believe that the principle is right to keep them as they are. Our license limits us to forty, we have accommodations for sixty, and we have five to one more discharged than the State asylums can show.

Mr. F. J. BLACKMAN. Mr. Chairman: I appear on behalf of Erie county and for the Board of Managers of the Erie County Insane Asylum Farm, and I believe I appear also for nine out of every ten inhabitants of Erie county. Our county is peculiarly situated, for we have there a State institution, and within the borders of the county a large institution under the county care system. Erie county has within its borders an institution under State charge known as the Buffalo State Insane Asylum. It has also within its borders an institution known as the Erie County Farm, which is a body created by an act of this legislature in 1888. That corporation, that organization has within a year purchased a farm of five hundred acres in Erie county for the support of its insane. I came here to discuss this question from a charitable and humane standpoint. I was before this same committee of the legislature a year ago on what was then known as the Batcheller bill, and discussed the question from a financial standpoint, and I had supposed that no one would raise the question before this committee that the State could as successfully or as cheaply care for the insane as the counties, and I was surprised at the statements here by the gentleman from New York.

He said before this committee that under this bill there would be no distinction made between acute or chronic institutions; that this classification was to be abolished; that all institutions were to become acute institutions for the treatment of the insane, and that all the insane, no matter how chronic their disease might have become, were to be treated as acute from now on, or after the adoption of this bill. If that be so, then the cost of maintenance in these acute institutions must be kept up. It is a known fact that the cost of maintaining patients in acute institutions cannot be less than five dollars per week. It is also known that the cost of maintaining patients in chronic institutions is less than \$2.50 per week. If the distinction is to be abolished, and all are to become State institutions for the acute, the cost must be advanced to five dollars per week for each patient maintained. Of course it is going to cost double the sum at present charged for this class. The gentleman from New York also stated that the buildings were to be very moderate in their cost. That is true. It so appears in the bill. It is a fact that there are over 15,500 insane within the State of New York, and that less than 5,000 of them are now under State care, and if that 15,500 insane are to be put under State care, houses must be built, asylums must be established for at least 10,000 of them, and at \$550 per bed, the sum of \$5,000,000 would be required to place these institutions under the direction of the State authorities.

As far as the county of Erie is concerned, the gentleman who opened this discussion, the gentleman from New York, said that New York, Kings and Monroe counties were exempted from this bill for the reason that they now had ample accommodations for their insane. Cannot the same be said for the county of Erie? It now has its insane asylum connected with the poor department. It has purchased five hundred acres of land, upon which to found the asylum; has paid for the same, and the managers of that asylum, who are here to-day in opposition to this bill, are actively engaged in prepar-

ing to take some of the chronic insane to that farm during the coming spring. The county paid \$50,000 in cash for that farm, and as the gentleman who last was upon the floor has asked, is our county to be cheated out of the money invested for this purpose?

Now as to the establishment of this farm, I desire to call your attention to what was said to the board of supervisors at their meeting with regard to this subject, by the Hon. William P. Letchworth:

"I may say further, that having in view all the requirements for an insane asylum of the kind proposed, I think that this tract possesses these requirements in a greater degree than any asylum farm I have ever seen, not excepting the fine estate of eight hundred acres surrounding the Alt Scherbitz Asylum, situated in a charming, sheltered valley, on the banks of the little river Elster in Saxony, Prussia. Should careful judgment be exercised in the development of the property on the simple cottage plan, and its affairs be well administered, I see nothing in the way of making the proposed asylum a credit to Erie county, a pride even of the whole State, and a model for other counties."

Erie county is proud of that farm. It is proud of the institution that is started there to found a home upon the cottage plan, which, we are sure, will become the pride of the whole State.

Now, if New York is to be exempted, Kings is to be exempted, Monroe is to be exempted, simply because they have institutions that are sufficient to maintain their insane, why should not Erie county also be exempted? But it does not come to ask to be exempted. It comes here to ask that this bill be defeated. Not because it believes, and thoroughly believes, that the insane of the county of Erie and of the counties surrounding it will be better cared for than under State care, but for other and sufficiently weighty reasons. Under this bill the State is to be divided into districts, so that each of the existing asylums shall be placed in one district. From the district surrounding the Buffalo asylum that institution will receive all classes of the insane, and to it would also be transferred the insane at present in the Erie county alms-house. Thus that asylum would be called upon to receive and care for between four and five hundred additional patients. That asylum, that is overcrowded at the present time with a population of three hundred and sixty patients, an asylum that has cost nearly five thousand dollars per bed, would have to receive one hundred from Cattaraugus, as many from Chautauqua, half as many from Wyoming, and one hundred and fifty from the Providence asylum; and when it has received in addition the insane of all classes from Erie county, you can just begin to comprehend the gigantic size of the institution, sufficient to care for that number of the insane. Is there a gentleman upon this committee who believes that under the cumbersome machinery necessary to carry on an institution of that kind that its inmates would be as liable to receive humane care as they would in an institution of only a few, where the head of the institution could have personal supervision over each patient?

Did any one ever hear of abuses from the Erie county asylum under county care? I have yet to learn of a single instance. Abuses at the State asylum in Buffalo, or reports of abuses, are frequent. I have in my possession here a letter received within a week, complaining of abuses in that institution. Attendants connected with that institution have been tried for their lives. It is nothing against the superintendent of that institution; the fault is with the theory. In explanation of the suicide that occurred in that institution within a year, the superintendent said to a reporter of one of the newspapers in Buffalo that it was a wonder that such calamities were not more frequent, because of the great number they had to care for, and inability to give them personal supervision. I say it is not the fault of the head of the institution. The fault lies with the foot—with the brutal attendants. Talk about penuriousness in county institutions, the State of New York does not pay anywhere near the wages the attendants in the county asylum of Erie county receive. The county of Erie pays better wages and receives, I believe, better attendants. Prof. Chandler says that the institutions of the city of New York, of the county of Kings and the county of Monroe are exempt from this bill because their buildings are sufficient to take care of their insane. It appears,

if newspaper reports are correct, that they are more than ample to at least *restrain* the insane. You have doubtless all read of the case of Col. Rogers being confined in one of the institutions of New York city, and of the habeas corpus proceedings for his release. These reports tell a doleful tale concerning the methods of that institution.

It is said that the members of this legislature from the counties of New York, Kings and Monroe are in favor of this bill to a considerable extent. Why not? Upon reading this bill you will see that all the other counties of the State, if the insane are given over to State care, are to lose what money they have invested in the purchase of these county institutions. In the county of Erie we now have an asylum worth \$150,000, with a new one founded under the laws of 1888, with \$50,000 invested, and ready to invest more. If this bill becomes a law our county receives not a penny for its property from the State. In Section 8 exempting these counties which provides that in the case the counties of New York, Kings or Monroe desire to come in under this bill, that they can have their property appraised and the State will pay for it, the county of Kings, the county of New York and the county of Monroe are to support their own poor and contribute to the support of the poor in the State institutions. Can it be believed that the people of the city of New York and of the county of Kings are so blind as that? No. The point is that they being exempt under this bill, as soon as it has become a law, they will make application to come in, to have their property appraised, and to come here and ask the State of New York to pay them for the buildings they have erected for their insane. (Applause.) I do not charge this, but I say it looks as though the county of Kings, the county of New York and the county of Monroe were trying to get the start of the smaller counties. Under section 1, who can tell how these districts are to be arranged? I believe every one who examines this bill carefully must say that it is an anomaly. In the latter part of section 16, it expressly repeals the act chapter three hundred and sixty the laws of eighteen hundred and eighty-eight, creating a board of managers for the care of the insane of Erie County, and for the establishment of a farm for the insane, under which they have purchased the farm and are now in course of erecting an asylum.

I wish to say one more word in reference to what was said by the gentleman who preceded me, that is, if these people who have been so much criticised for neglecting the insane in the county institutions are not fit persons to have them in charge, why are they not removed from these institutions? Under existing statutes, every one of these insane people could be moved without further loss of time, and placed under State charge. If the law is not broad enough, let them formulate a law, and let this legislature enact it, giving to the Commission in Lunacy or some other State Commission, full authority to prescribe rules of care, rules of diet, rules of supervision of county institutions, and then if they do not comply with these rules, let them be placed without further delay under State care at the expense of the counties, and there properly maintained until the counties shall make proper provision for their care. Then it will give every county its inherent right to care for its own insane. Prof. Chandler spoke of some of the counties being able to take care of their insane for \$1.06 per week. If I remember correctly the report of the board of supervisors for last year in Cattaraugus County showed that the cost of maintenance was not over this sum. Now, it is a fact that they have a farm in good cultivation, and that the patients in that asylum are not worked as cart horses, as the gentleman from New York has said. But these patients do not spend their time moaning over their confinement and nursing their delusions. They are kept upon that farm, trimming the green, planting the crops, they have enlightened care of their insane in that county; it is nineteenth century treatment. (Applause.) And for that reason the cost of their maintenance is reduced. I understand that a committee from Cattaraugus County is here to-day in opposition to this bill, and an ex-judge of the supreme court, the present district attorney of that county and others in authority have stated that this bill should be defeated.

One more word. You have doubtless read of the system in vogue in the State of Wisconsin. A recent report shows that it is highly satisfactory.

They have done away entirely with the State asylums there. The percentage of cures in the State of Wisconsin shows that in 1863, when county care was changed to State care, the cures fell from 75 per cent to 20 per cent till 1883, when it went back to the county system,—and those are facts that cannot be disputed unless the report of the State Board of Charities is proved to be untrustworthy. We know that the State Asylum at Buffalo cannot maintain ten or fifteen as well as one. Now, it cannot comfortably maintain 360 patients, and we know that if this bill passes that our insane will have to be taken away to distant parts where we cannot see them, or have them under supervision.

MR. JOHN R. WASHBURN. Mr. Chairman and Gentlemen: I am not here to make a speech. I am here to present a few statistics. I will say that I represent the poor insane people of Jefferson County, who are not able to be here at this hearing. Prof. Chandler asks who are here to oppose this measure? The superintendents of the poor. Well, who should be here to talk upon this measure, if not the superintendents of the poor? There is a statute law of the State of New York that no judge and no other power, no authority in this State can commit an insane pauper or indigent to any asylum, without first giving the superintendent of the poor of the county due and proper notice. Don't that infer that the superintendents of the poor should know something about this, and doesn't it infer that they have a right to discuss this question.

The only argument I have heard advanced for this measure is that the curative results are so much more in the State asylums by reason of expert treatment by physicians that have especially studied this question; the cures are so much more than that, although it costs more in the State asylums, it is an actual economy to send them there. Let us see. I took my own county, that has always had a county asylum. I took the report of this present State Commission in Lunacy, their first report, and I figured that that county had in custody in all the asylums of the State (we send all our acute and some of our chronic cases to State asylums), we had in custody this fall 99 patients, with a population of 66,000 in the county. Then I took a county having nearly the same number of inhabitants, and figured up to see how many insane they had, and I found that the counties having State care for all their insane appeared, to have a larger number in custody. I took ten counties that have the county care system, Clinton, Cortland, Chautauqua, Cattaraugus, Jefferson, Lewis, Orange, Oswego, Wayne and Wyoming, having a total population in round numbers of about 574,000. They have 874 insane patients. Then I took ten counties that send all their insane to State asylums, Chemung, Delaware, Dutchess, Ontario, Saratoga, Seneca, Steuben, Tompkins, Westchester and Yates, with a population of 520,000, or 20,000 less than the other counties. They have, according to this same report, 1,268 insane, or 394 more than the first ten counties. Now can any man tell what the reason is for this great difference in numbers? I took twenty counties nearly alike in character, in order that the conditions might be the same, rural counties. Why is it that under this beneficent State care, and with its curative results, these ten counties, having all their insane in State asylums, should have 48 per cent more insane in custody with 20,000 less population than the first ten counties mentioned. The county of Albany has no county asylum. The county of Albany I think should be an offset to the county of Monroe. The population of the two counties is about the same. The population of the two cities, Albany and Rochester, is nearly the same. Albany has 454 patients in custody, while Monroe has 382. What reason can you give for Albany having so many more insane than Monroe County? Under State care Monroe County would not be able to show such curative results as these.

I will take the figures of the State Commission in Lunacy, page 27. This State Commission in Lunacy says that the loss of the earning capacity of an insane person represents in the natural life of an insane person a loss of \$4,200, while a sane person for a like period of time represents a gain to the people of \$1,800; and that the maintenance of insane persons amounts to the sum of \$200 per annum. At this rate these ten counties are paying every

year for the support of their insane over \$64,000. Now then, gentlemen, if these figures are wrong, if they can explain this in any way they may do so. They are at liberty to prove that the care in large State asylums tends to cure people, but these reports show to the contrary. I will take the Willard Asylum for instance. According to the report of the State Commission in Lunacy, and they have a table in their report, which shows the percentage of recoveries in the State asylums, the percentage of recoveries in the Willard Asylum in 1870 was three and five-tenths. Three and five-tenths per cent would seem to be low enough in all conscience, and this with a population of nearly 250 patients. Ten years later, their cures fall to one per cent, with an average population of 1,600 patients. They have sixteen recoveries reported in the total for that year. Doesn't that prove that this massing of patients in large asylums, far removed from their friends, where they see no familiar faces, where oftentimes perhaps they grieve and die of home-sickness, is not the best plan?

The CHAIRMAN. Mr. Washburn, is not the Willard Asylum an asylum for chronic cases only?

Mr. WASHBURN. I beg your pardon, it also—

Mr. CHAIRMAN. You needn't beg my pardon, sir, I have simply asked you a question.

Mr. WASHBURN. I understand that there are five or six counties in the immediate vicinity that send all, or substantially all their insane to the Willard Asylum. And when these things are taken into consideration, it shows that there should be more recoveries there than appear by these reports. Since I have been superintendent of the poor of Jefferson County, I have transferred from the Utica Asylum to Willard eleven or twelve cases. Of those eleven or twelve cases during a period of six years, not one to my knowledge has ever recovered or improved, or otherwise been returned to Jefferson County. Dr. Wise is here, and can correct me if I make a misstatement. During the same time I have transferred eleven cases to our own asylum, and of those eleven cases, seven have been discharged from our asylum and have returned to their homes and friends, and have ceased to be a charge upon the public. They have returned there where every man, woman or child in this room would say if they knew them, they belong there by the instinct of humanity or Christianity. Of those eleven patients, two wives have returned to husbands and children, three widowed mothers have returned to their children, one daughter has returned to keep house for her widowed father, and one son has returned to make happy the home of a widowed mother. You can figure what significance there is in these facts. I give you these figures, and I could give you plenty more of the same kind, but I will give way to the next speaker.

HON. G. W. GREENE, of Orange County. Mr. Chairman and Gentlemen of the Committee: I should have preferred gentlemen who have come from a distance to occupy the time, and except that I was requested by a committee from the board of supervisors of my county, as well as the keeper of the county asylum who is here with the physician of the asylum, I should say nothing at this present time. I might say further that I would not be drawn into saying anything with reference to that institution now if in the recent report of the State Commission in Lunacy made—I have no doubt in good faith—some sharp criticisms had not been made and applied to my county. I was shocked when I read them and I was diligent in inquiring into it, and I am fully prepared I think now to say that those gentlemen are mistaken, and that there are persons here present in the room who can demonstrate that they are mistaken. We did suppose that in Orange County we had a model of a county institution, and had as matron of it one of the big-hearted and motherly ladies of the world, whom everybody knows, loves and respects, an institution on which we have expended some fifty or sixty thousand dollars to establish. We thought it was in proper charge. I have in my pocket the certificate of the ladies of the local visiting branch of the Aid Society which consists of Mrs. Judge Gedwin, the daughter of Judge Dwyer of New York, of Mrs. Phillips, daughter of George Tallman of New York, of Miss Wisner and of Miss Greer, daughter of Mr. Greer, the executor of the estate of Governor

Seward and other equally prominent people in the neighborhood. No person, knowing them, would question a statement they make. They say they have visited this institution as often as seven or eight times a year, at times when no person expected them and that they found it in proper order and that the care was such as they believed to be proper. One word. The physician to this asylum, although the political character of the institution has changed many times, the same physician has been in charge of that asylum for fourteen years. In that time, while over fifty patients have been returned incurable from State asylums, there has never been one returned cured in that whole time. This is the question in my judgment. If these gentlemen favoring this bill can present to us better results, not fancies, not mere imagination, but better results from these State institutions in cures, then I will begin to talk with them. All this is capable of demonstration from the records of the local county institution, and until you can produce the figures and demonstrate that these statements are not true, you have no grounds in my judgment, for expending not half a million, not a million, not a million and a quarter, but I venture to say ten millions of dollars in carrying out the provisions of this bill. These statements cannot be controverted, unless I am misinformed. So far as my observation and reading have extended, there are better results, more cures and betterments from proper county institutions in proportion to numbers than the State asylums can show, and I have one of the best in my own county, the State Homœopathic Asylum, which shows a higher rate of cures than any other institution in this State or country or any other country.

The ground has been very well occupied by a statement with regard to the uselessness of these county buildings, in the event of the passage of this bill, and I do not desire to treat the subject from that standpoint. I put this question on the ground that the State asylums cannot make as good a showing as to cures as the local counties can show to-day, and until they can, all talk of this kind is mere theorizing. You know, as the law now is, the acute insane are to go to the State asylums, not the county institutions, and that the chronic insane, or those supposed to be so by the authorities of these State asylums and pronounced incurable, are sent to the county institutions. Now, while they need proper care and food and everything that will make their surroundings pleasant, still they are returned to these county institutions as incurable under the law after a certain period of treatment. That is the theory upon which they are returned to the county asylums; that they are incurable. Then this whole theory about the cures in the State asylums, it seems to me, falls to the ground. Furthermore, if these people are absolutely incurable, as they are pronounced, by the State asylum doctors, they don't require that scientific skill that may be applicable to the acute insane, while there is hope.

I am very glad that the representative from Erie County pointed out something significant in this section seventeen, especially in connection with the remark of the gentleman from New York, that it was suspicious that the men representing the care of the insane in the county houses should be here, and that the opposition to this bill was not legitimate—and they are pretty broad terms to use, it seems to me—I think that a representative of New York city coming here to advocate this bill, stands in a much more questionable position. (Applause.) He is willing that the property of the farmer and those who have erected these county institutions shall be sacrificed and makes no provision in this bill for compensation for this loss of the buildings erected for the chronic insane. But in order to keep New York and Kings and Monroe still, they say, "We'll let you in by and by. We are not going to take away your property, but when you want to come in we will have your property appraised by the State, and all the other counties of the State, whose property has been sacrificed, may stay out." That's what's in this bill. This New York property is to be appraised. For what purpose? To be paid for. How? By taxation, I take it. And, if so, it must come out of the property of the State. There is nothing in the bill to indicate how the property is to be bought, and it is a method more than suspicious and intended for the purpose of passing this bill, in my judgment, for it could not be passed on its merits.

If you cannot show that the care in State asylums has been such as to produce better results than those reached in county institutions, you have no right to come here to urge this bill. The insane are the wards of the State, and the State owes a duty to these poor unfortunates, and the question is not one of dollars and cents, or I would not talk about it for a moment; but until it can be shown that they are receiving a higher grade of care in the State asylums than they are to-day receiving in the county institutions, the supporters of this bill have no grounds upon which to stand. I have no doubt that the gentleman who has spoken in favor of this bill has a good knowledge of medicine, but when this gentleman finds that these people in our county institution are taken out daily upon the farm and about the barn; that they are taken out with a kindly superintendent; that there is no harsh duty required of them; that there is no particular labor required of them, but that they prefer to go out on that farm unasked, most of them, perhaps, he will not make charges which embrace every county and every county institution in the entire State. In my county there is a three hundred acre farm; it is fertile and productive. Everything raised on that farm is consumed by the inmates. The rate charged is one dollar sixty-two per week, but the quantities raised upon this farm do not appear in this figure. If it did, the cost would be increased one hundred and fifty per cent.

So that I believe the care there is entirely proper. I believe that they can receive care there that is better than can be given them in these large institutions. I believe in these small county asylums abuses are more easily discovered and removed, something almost impossible in this wholesale method of caring for the insane by thousands. I trust that this committee will give due consideration before they report in favor of this bill.

MR. JOHN C. DAVIES. MR. Chairman: Without taking up much time, I wish to state the position of Oneida county as shown by resolution of our board of supervisors. Prof. Chandler—I believe that is the name—stated that Mr. Evans, our county superintendent of the poor, is in favor of this bill. I am here to-day at Mr. Evans' request, to oppose this bill. He started to come to Albany himself for this purpose, but was obliged to return because of sickness. I make that correction for what it is worth. The gentleman may have misunderstood Mr. Evans' position with regard to this subject.

Our board of supervisors number forty-three. Some few years since we expended some \$60,000 in repairing our county insane asylum, and now we wish to know if there is any charge to be made against Oneida County in the treatment of the insane in the institution provided for them. The charges in the report of the State Commission in Lunacy have been general and not specific, and Prof. Chandler has related a tale of horror concerning the indignities against these unfortunates. If there are such horrors existing to-day in the county asylum of Oneida County, there is not a person in that county who will not say, Take these people away at once and make them the wards of the State. We know what the treatment of the insane is in both classes of institutions in Oneida County, for we have besides our county institution the State Asylum at Utica. I do not want to make any reflection against the management of Dr. Blumer and his board of managers, but the time has been and not so far back when the friends of the insane looked with dread and horror when they saw them incarcerated in that building. I challenge the State Board of Charities or the Lunacy Commission to state a case where one person during the last ten years has been maltreated or misused in the county institution. We have a farm of 350 acres, which goes to sustain those insane, and last year we spent fifteen thousand dollars in those buildings.

We want to know why the three counties are exempted. The professor said they had buildings in which they could take care of their own insane. So have we. We have our institution. It looks very much to me as if the exempting of New York, Kings and Monroe counties from this act was special legislation of the worst sort, and I am astonished that there are gentlemen upon this committee who do not seem to look upon it in that way. By the provisions of this bill, the treasury of the State is to be called later on to pay for these buildings in New York, Kings and Monroe counties. It looks to me as if this sop was thrown to New York, Kings and Monroe by gentlemen who are well

versed from long experience in getting bills of this character through the Assembly; that it has become necessary in order to get this measure through, to conciliate the representatives of these three counties.

Mr. C. COMAN, of Madison County. Mr. Chairman: I desire to ask Dr. MacDonald, if he is here present, to state to this committee whether the allegations contained upon pages 63, 64 and 65 of the Lunacy Commissioners' report relate to Madison County, from that portion beginning "within a small room, in an old dilapidated wooden building?"

Dr. MACDONALD. They do.

Mr. COMAN. Mr. Chairman: It was expected that the Hon. A. M. Holmes, formerly member of the Senate and for many years a member of the board of supervisors of our county would be here to-day and correct these misstatements, as Judge Greene called them, which appear in this report, as far as they relate to Madison County. Mr. Chairman, the people of Madison County have been at a great expenditure of money for erecting a building for the care of their chronic insane, and it is a building of which the people of Madison County are proud, a building fully approved by the authorities of the State Board of Charities and by Dr. Hoyt, who visited it, and it has been in use for less than one year. It has been stated that these charges relate to the condition of affairs in Madison County, but I am here by direction of the board of supervisors of Madison County to say that they are absolutely without foundation. That there is scarcely a shadow of truth for them to stand upon, and I do not ask the gentlemen of this committee to take my word, but I ask them to send up to Madison County to investigate these buildings and charges, and, if we do not prove to your satisfaction that they are untrue, then we shall withdraw our opposition to the bill. I have in my possession the affidavits of three as reputable citizens as live in that county, the superintendent of the poor, the keeper of the insane department, and the matron of the asylum, upon this question, and the people of Madison County feel a just indignation that it should be charged that in the midst of the Christian community in which we live, such outrages as are recited here should be perpetrated. We deny them in toto. If I had time to read these affidavits, I think I could satisfy this committee of the falseness of these statements. But if not, I will leave them with the committee. I desire to read portions of the statement of these commissioners. "Within a small room, in an old and dilapidated wooden building, suitable only for an out-building, on a bleak and wintry day, was found a demented old woman, apparently about seventy years of age." This old and dilapidated wooden building referred to is not a dilapidated building in any sense. It is a warm, comfortable and suitable building. It contains arrangements for hot and cold water, bath tubs properly heated and properly cared for. This old woman was confined there, because the Commissioner in Lunacy or the State Board of Charities would not send her to a State hospital. We had requested them to do it, but could not get rid of this woman. And it was only a short time before this visit of the Lunacy Commissioners that the institution was visited by a member of the State Board of Charities, and he was asked if she should be taken into the new buildings, and he replied no; that the place where she was kept was a proper one. That was the Hon. Peter Walrath, a member of the State Board of Charities.

I could go through with these allegations and deny them in detail.

"In this same building the key of the doors of the other rooms was only found after some difficulty and delay. The beds in these rooms were examined and presented a most shocking appearance. The ticks were only partly filled with straw, and the bedding was discolored by human filth." The fact regarding this, as we can satisfy any member of the committee is that Dr. MacDonald examined the lower portion of this building, he asked what was in the upper part. The keeper said it was absolutely unoccupied. Dr. MacDonald said he wanted to go up stairs. They then went up stairs, and Dr. MacDonald opened every door upon that floor, which happened to be locked, and said to the keeper, "I propose to go into this room." The keeper said he hadn't the key, but would get it and unlock the door. He went down stairs after it, but when he came back, Dr. MacDonald

was standing looking out of the window, and said to him, "I don't care to look into the room." The keeper insisted after he had made him that trouble that he should look into it, and he did look at it, and it contained nothing but an empty bedstead.

Concerning this old lady, I would say that what this report tells about her bed being half filled with straw is not true. The keeper and others swear there was a feather bed and a straw tick upon it. Dr. MacDonald asked him what he had two ticks on for, and he replied she was an old lady, and he wanted to make her as comfortable as possible, but Dr. MacDonald told him he did not approve of feather beds for filthy patients.

C. M. WOOLSON. Mr. Chairman: I appear here at the unanimous request of the board of supervisors of Ulster County. Some few years since, under the instruction and advice and supervision of the State Board of Charities then existing, we built an asylum at a large expense. It was built on the county farm, and removed some distance from the county poor-house, and it had all the modern improvements, and was approved by the State Board of Charities. Under a dispensation from that board, we, from time to time, removed patients from the State asylums, so that we have now in that county asylum eighty-four patients. We have also in State asylums 113 or 114 patients. Of the number that have been discharged as incurable from the State asylums and placed in our county institution, ten per cent have been discharged cured, and are now with their friends. During all the time that all the chronic insane of our county have remained in the Willard Asylum, less than two per cent have been returned dead or alive. It is enough for me to say that since that time we have built this asylum, and have made provisions so that we shall be able to accommodate many more patients. We have also provided in the poor-house accommodations for sixty additional paupers. Now, what are we to do with our county asylum buildings? We have so much room for the paupers that it cannot be used for them. We acted in good faith in building this institution, and we built it under the supervision of the State Board of Charities. It is filled with all modern improvements, and I defy any one who visits that asylum to say that the patients are not as well treated, as humanely treated, as they are in any asylum of the State. I want to say of this broad statement of the Commissioners in Lunacy that no accusation in that statement falls to Ulster County. I am here, and can produce men from Ulster County who will swear down any statement these Commissioners will make. I claim it is unfair to lug in these general charges, and I want to say that not one of them applies to our county. No two patients are washed in the same water; we get an abundance from the Wallkill. No one is improperly cared for, or improperly treated at the Ulster County Asylum. Perhaps if we had as many members from Ulster County as from the County of New York and Kings, Ulster County would have been exempted also.

Dr. M. J. LEWIS. Mr. Chairman: I appear before you on behalf of the New York State Medical Society. I have a grievance against Dr. Chandler and Miss Schuyler. The State Medical Society, unlike the counties of New York and Kings, have not received any sop, but I simply desire to present to this committee a resolution recently passed unanimously by the State Medical Society at its recent meeting in this city. I may say that a year ago, a resolution similar to this was passed unanimously by this same society. We appeared before you at that time through the medium of our Committee on Legislation, advocating the claims of this bill. This year the discussion arose in the society upon the same question. I desire to read the resolution to show how forcible it is. It has been forwarded to the Legislature by the hand of the Secretary of the State Medical Society, Dr. F. C. Curtis:

"Resolved, That the members of the Medical Society of the State of New York, which has represented the medical profession of the State these eighty-five years, without any reference to political opinions and affiliations, and merely guided by their scientific convictions, as experts in medical matters, and their sense of duty and the dictates of conscience as citizens, entreat and urge the members of the Legislature, without distinction of party or local interests, to pass the bill referring to the pauper insane as presented by

the State Charities Aid Association, and thus terminate a condition, the horrors of which, as detailed in the annual report of the State Commission in Lunacy appear to be irretrievably connected with the county care of the insane."

Last year I had the honor of listening to Dr. Jacoby, who presented these resolutions and spoke in behalf of the bill before the committee.

The gentleman speaking in behalf of the county of Erie said the tendency of the times is toward small asylums. But no one will deny that the tendency of the times is also to specialists. We have specialists in all departments, in all branches of business and of trades. Dr. Jacoby, President of the Neurological Society of the city of New York, appeared before this committee last year and read the resolutions unanimously adopted by that body, a body of specialists, who advocated the claims of this bill. I had also the pleasure last year of hearing Dr. Abraham Jacobi, who came here to advocate this measure. It may be necessary to explain what the State Medical Society is. It has representatives from all parts of the State. It has arteries and channels from the remotest sections, and it represents four-fifths of the medical profession of this State. This body appoints a committee on legislation every year, and I may say to you that this year, for the first time, the State Homœopathic Society has agreed with us so far as to pass unanimous resolutions in regard to this bill. So the medical men of the State of New York can be said to be practically united in support of this measure. They believe this to be a proper and wise measure, and earnestly urge you again to pass this bill.

Hon. OSCAR CRAIG. Mr. Chairman: I do not appear here to-day in behalf of the State Board of Charities. I appear as an individual commissioner, and in that capacity I am here to speak for several others of the board as well as for myself. That board is composed of eleven members. Mr. Letchworth, of Buffalo, has authorized me this year to state that he is in favor of the bill. Gen. Milhau, who was chairman of the committee on insane this year, and was on the committee with me before, is in favor of the bill, but his time has expired, and the vacancy has not yet been filled. Mr. Foster, of Potsdam, another member of that committee, is in favor of the bill; in fact, all members of the committee on the insane of the State Board of Charities favor the provisions of this bill. Mr. Ripley Ropes, the originator of municipal reform in this State, is in favor of the bill, and I have a letter in which he says that I may state his concurrence with the provisions of this bill in any terms I may think proper. We have thus six out of the eleven members of our board favoring the measure, and in whose behalf I appear; but I do not appear for the board as a board. Now, I think that I cannot do better than to follow briefly the statements made by the other side, and I wish to say that I desire to continue the pleasant personal relations, which I have always endeavored to keep with the superintendents of the poor of the different counties. I think they will bear me witness that I have not made this a personal matter, but have looked at it as a system. Now, we are told by Mr. Ross that the superintendents of the poor are united in opposition to this bill, but this is an historical matter; it has always been an issue between representatives of the State and representatives of the counties, and these two classes may be left to balance one another. Opposed to the superintendents of the poor are several bodies representing the State of New York. In the first place the State Charities Aid Association is an incorporation under the laws of the State of New York, for the purpose of improving the condition of the indigent insane. Then we have the State Board of Charities, which I do not intend to cite as a board, but with regard to a committee of it; one party may be left to balance the other. Now, nearly every one of us started in upon the board as "county-care" men. We all came back from our tours of visitation "State-care" men, convinced that nothing could be done for the improvement of the insane under the present system. When the Commissioners in Lunacy started out, one of those commissioners was opposed to exclusive State care and another was entirely non-committal; but they all came back from their first visitation and examination of these county institutions thoroughly convinced in favor of State care. Perhaps I ought not to cite these instances because these boards represent one side of this issue, but they certainly do offset the other side. I

will, however, cite the position taken by the medical bodies of the State of New York, which we have heard here to-day. They are men who should be cited here as authorities. Their opinions are entitled to the greatest weight, and I think that every man here will agree that they come to the discussion without prepossession or prejudice.

Now, with regard to the quotation which has been made from the Report of the State Board of Charities for the year 1890, with regard to the large per capita cost of State asylums, the resolution which authorized this statement to be made in our report was not offered by myself, although it received my vote. In fact, it received the unanimous vote of the State Board. You will see that no issue was raised by it; you will observe that the board does not, in that statement, place itself upon the side of the adherents of county care; it had no bearing upon that subject. It was simply directed against enormous buildings, buildings for the acute insane, a class not before you at all. I undertake to say that while some of these hospitals cost \$3,000 or more per capita, the Willard asylum has cost only \$700 per capita, including the administration buildings, and that the infirmary buildings, which ought to cost more than other buildings, have cost only \$250 per capita. Now all this noise about the enormous cost of buildings, as brought in in connection with this subject, is entirely frivolous and irrelevant. This bill provides that the buildings shall only cost \$400, with an allowance for furniture, fixtures, &c. It has been said that it will be a hardship for persons who wish to visit their friends in an institution to undertake a long railroad journey to a distant State asylum. I will give you some figures with regard to the location of the county institutions in some of the counties. In Wyoming county the institution is eight miles in the country; in Onondaga county the institution is four miles distant from a railway station; in Orange county the institution is four miles from a railway station. Now many of these State asylums would, as a matter of fact, I undertake to say, be more accessible to the friends of patients than are these county institutions located at such distances in the country.

Mr. STONE, of Wyoming County. The railroad runs right close to our institution.

Mr. CRAIG. On what road?

Mr. STONE. On the narrow guage road.

Mr. CRAIG. I undertake to say that it does not run in such a way that you can visit that institution and return the same day. You are obliged to stay there all night.

Mr. STONE. It runs very convenient for the people on that line of road.

Mr. CRAIG. Can you go from there to other parts of the county?

Mr. STONE. You can; the trains there connect on the Erie road.

Mr. CRAIG. I should have been glad to know this when I visited the institution.

Mr. STONE. Yes; and there are some other things you should have learned up there. (Applause.)

Mr. BLACKMAN. Didn't Mr. Letchworth ask you to use your influence; didn't he write you a letter, in which he asked you to use your influence to have a certain county exempted from this bill?

Mr. CRAIG. I have not come to that yet.

Judge Mead took a noble ground. He said he would not quibble about the cost, but he is mistaken about some of the facts in regard to his county.

In regard to some of these statements made, I understood him to say that in the Tioga County institution there were four attendants. If I misunderstood him, he will correct me. I quote from a report made by the committee on insane of the State Board of Charities a year ago:

"Tioga County Asylum. Number of male patients, 18; number of male attendants, none; number of female patients, 24; number of female attendants, none. The keeper and matron care for the patients without assistants on the wards."

At that time, this report was submitted to the superintendent of the institution before being sent to the legislature in order that any corrections deemed necessary might be made. He says in a note received by the commit-

tee: "We have always a male attendant, when I am absent. We have two hired men; one sleeps in the asylum. No female attendant."

And that is the case in most of these county institutions. They count in for attendants hired men and hired women who do the work of the county house. Those are the admissions of the superintendent.

Now, with regard to the cases cured. A good deal has been said about the discharges from county asylums. Now, let me read you some abstracts from the certificates on which patients have been received into that institution. "Caroline H. Haniston, forty-eight years old, received on medical certificates, dated July 12th, 1887, was discharged some time in July, 1887. Polly Slyker, twenty-three years old, admitted on medical certificates, dated April 21, 1887, and discharged in June, 1887. Stephen Brink, received in January, 1887; discharged in February, 1887; received again on medical certificates in December, 1887, and discharged in April, 1888."

That tells the whole story. The person discharged after two months' detention was received into the institution one month after his discharge; not discharged on the certificate of a medical practitioner, but on the *ipse dixit* of a layman, and they drift back into these institutions, and also drift back into the State asylums. I know about one of those cases in Jefferson County, which Mr. Washburn spoke of as having returned to their homes. This patient was discharged, and a very short time afterwards was sent to the Willard Asylum on the certificate of medical practitioners as to his insanity.

Mr. WASHBURN. That patient was at home with her family, and fully recovered for two years, and was taken again insane from the fact that her son-in-law, with whom she lived, abandoned this woman's daughter.

Mr. CRAIG. Tioga County made light about the process of bathing two patients in the same water, but in a majority of cases we found eight or ten bathed in the same water in one common bath tub.

Judge Mead asks why these patients have not been ordered out of the county institutions and back to the State asylums. Because the State asylums have been full, and the State Board of Charities could not exercise a prerogative which is given them by law. Mr. Blackman says there are 15,500 patients in the State of New York, and only about 5,500 in State asylums. He tells the truth, but New York and Kings have more patients in their city asylums than are found in the rest of the State, including those in private asylums and those in exempted counties. He speaks about the cost being \$5 per week. The bill does not make any such provision. It says that the indigent insane shall be taken care of in these detached cottages, and under the general supervision of the asylum, and, of course, that isn't going to involve a cost of \$5 per capita, for we know that it is only \$2.25 at Willard to-day.

Now, Mr. Letchworth has been quoted here to-day and I want to say that besides what he has told me, I know that he entreated the board of supervisors of Erie County to withdraw their opposition to this bill.

Senator FASSETT. There is a good deal of emphasis upon the fact that the Board of Charities had the power to remove every patient from these county institutions, and has removed scarcely any.

Mr. CRAIG. The Board having the power *de jure*, but not *de facto*. We cannot enforce these regulations except by withdrawing some of the insane now in State asylums. I want to say that the officers of the State Board of Charities, that Dr. Hoyt particularly, has done his whole duty with regard to this class. He visits the poor-houses, he enforces the State pauper and alien law, he does more work than any two men that I know of. He undertook to inspect these exempted institutions, but could not do it, and we had to step in and appoint a special committee for this work.

A great deal has been said by Mr. Blackman about the exemptions of the three counties. It is all on the surface of things to any one who is intelligent enough to understand the matter. New York is not exempted, Kings is not exempted, Monroe is not exempted. They are the only three counties who keep their insane in the State of New York that are not exempted by the provisions of this act from taxation for the care of the insane in the rest of the State. Monroe was an independent county asylum before the Willard act.

was passed, and is therefore independent. They have never been exempted there by the State Board of Charities. There is no reason why they should be excepted. The insane in the institutions of New York and Kings counties exceed in number the patients in all the State institutions of the State of New York. Now, we want to go slowly. It will be a good many years probably before New York and Kings counties even if they choose, could come under this bill. In the meantime, they pay double taxes. There is no favoritism towards New York. But there is no opposition from that city to this bill. There was no opposition in Monroe County on account of the double taxation, but the leading taxpayers of Rochester sent in a petition last year for the passage of this bill on the ground of humanity, and that petition is in the archives of the Senate now, from representatives of the large property-holding class of the city of Rochester.

They have spoken about the rate of cures in the State asylums compared with those of the counties. Does not everybody familiar with the methods of caring for the insane in this State know that the counties send their worst cases to Willard and Binghamton? Don't the State institutions receive the worst cases, the filthy and disturbed cases, the cases that cannot possibly recover? These are the cases sent to a State institution. They say there have been no discharges from the Willard Asylum. Don't everybody know that the Willard Asylum doesn't discharge to the county asylums? It never discharges them to the county superintendent. If a patient is discharged he is discharged to his home.

But I can't go on with all these points. There is an answer to every one. I want to say that it is the easiest thing in the world to go through an asylum, make a cursory examination, and say that everything is all right. You don't find the actual facts by such an examination as this. You have got to cross-examine the attendants, and you have got to go at different hours. I might say, too, that even when an honest man comes out in opposition to the statements of specialists, who are also honest and honorable men, the presumption is always in favor of the specialists. But I will leave the Commissioners in Lunacy to reply to the attack which has been here made upon the statements of their report. I never mince matters; while I feel kindly towards the superintendents, I call them by counties every time in my report. Now, Livingston County, in my district, was made an example of in my report a year ago, as having very great abuses and evils. At my visit this fall, I found some had been remedied, and I began to feel better, but as I was going through the last ward of the asylum, on the top floor, with a female attendant, I turned to the attendant and asked her what there was in the attic. She said, Nothing; we don't keep anything there. I asked her, Didn't you ever keep any insane there? and she answered, No; never. Now, there were two others present with me. I should like to have an issue of fact with regard to this particular matter, I think. I said, "It is my official duty to go to the garret." After some delay, a key was found, and we visited the garret. The garret was filled with noise and disturbance. There was a pounding on the door, there were human voices. We went to the opening in the garret from which it proceeded, and found a woman behind another locked door. We found in that room no light, except a little coming in over the top of the door. The window was barred. And we found this woman had been confined there for thirty-six hours. Now, between that woman and any medical attendance or any other human being were two locked doors. I don't undertake to say barring the deception, that the cruelty of immuring that woman in that dungeon was to be charged to the persons who had her in custody. The fault is to be charged to the system, for the county does not provide wards enough to classify the patients, and if the county institution retains disturbed and violent patients, I don't charge it upon the superintendent of the poor. I charge it upon the system. This is in a single institution, and in an unexempted county. Another member of our board was given the same answer with the same deception, but, nevertheless, ascended the stairway and found this woman behind the same doors. I would like to have affidavits that would call that fact into question. As I say, I don't charge it to these people; I don't say it was a case of intentional deception, but I do say that it

is to be charged to the system; there were not wards enough there for classification, and that's all there is of it, and that is all that is pertinent here.

I have felt my conscience charged as an individual man to do what I could to remedy these evils, and if I were sitting in the place of any member of this committee, I would feel my conscience charged with the same thing. I know there is not a reform in the State of New York, or in the United States, which has not been opposed by some of the best men in the country. What have the county superintendents to urge against this bill? Their minds have been filled with prepossession. But we, we have got the light, and we see things by that light; don't let us darken our light because some other man, our superior, perhaps, doesn't have that light. It would seem as if this whole question should be determined on grounds of humanity alone. But we are directed to the question of economy. They have the burden of proof with regard to this question. I undertake to say that there are no figures that can be offered here to bear out their statement. What are the facts with regard to the present exempted counties? In these institutions there is no separation of finances or accounts; none whatever. So that when they give the figures here they are made up and compiled from the data of the poor-house at large, including the paupers. This is a fact that cannot be gainsaid. Thus, those so-called statistics are statistics falsely so called. They are no statistics. You must put inference in the place of a statement of fact. You must say that the pauper or indigent insane can be maintained as cheaply as the ordinary pauper; that is a boomerang that goes against every argument they can bring forward as to the humanity of this system. It is self-evident to every one that an insane man cannot properly be maintained at the same figure as a pauper. Let me read you from a paper published in one of these counties:

"It is imperative that something be done soon to provide additional accommodations for the insane of this county at least. The board of supervisors this winter will be called upon to take some definite action to satisfy this demand. The insane, Superintendent McIntyre says, are better workers than the paupers, several times over. If all the county insane were sent to State institutions, provided accommodations could be found for them, then it would be necessary to employ a number of men to work the county farm. What the paupers do is very small and reluctant labor."

Now, don't you see that this question has another bearing. What right has a county to cause the indigent insane to work for the support of ordinary paupers in county asylums, and then refuse to have them work in the State asylums for the bad cases which that county sends to that asylum. Besides, it shows an inequality, as among the counties, and that is an argument which I wonder that the representatives of non-exempted counties have never seen. An ordinary county sends all classes of the insane to State institutions. The exempted county send only the filthy and violent cases of the chronic insane. Now, these filthy and violent cases are the ones that bring up the rate, so that those exempted counties have burdened the non-exempted counties in supporting their troublesome cases, and have kept at home the best cases for the support of their paupers. I say all classes of the chronic insane who are simply willing to work should not be put to hard labor continuously from day to day without proper medical supervision, and that the primary purpose of supporting the paupers by keeping these chronic insane in the county institution is abominably cruel, and is an argument that is a boomerang against the position they take that does not leave them footing to stand upon.

Now, Monroe County is an independent asylum, but with all its heterogeneous population, its disturbed, quiet, cleanly and filthy, it has only three wards for over three hundred and fifty patients. Now with all those disabilities, deprivations of what those patients are entitled to, the per capita rate is over \$2.70 per week. The per capita at Willard is only \$2.25 per week. Now it is true, I should state that the expenditure at Willard and the salaries of the superior officers is not included in that \$2.25, but that the figures would show with all these items included that the per capita rate is only \$2.50 against \$2.70 in Monroe County. Now Monroe County is far superior to the other counties that care for their insane in this State. It is under the supervision of a medical warden, a conscientious man, a competent man in

every respect. It is a county asylum which approaches more closely than any other county asylum to the Willard Asylum, but you can see that the cost in other counties would be far greater if proper care were given to this class of the insane. There is the rub. Give them the same care, and there is every proof that they will cost infinitely more in the county institutions than in those maintained by the State. You cannot state it in any other way. It is an algebraic formula, and you cannot, by any form of special pleading, show it to be different.

Dr. J. B. ANDREWS. Mr. Chairman: I rise to make some corrections as to certain statements made by members of the board of supervisors of Erie County regarding the Buffalo asylum. I do not rise here to say anything to defend the Buffalo asylum. I do not think it needs my defense, but the gentleman has referred to one or two unpleasant incidents that have occurred in that institution; to the fact that there were three attendants arrested, charged with assault in the first degree. I would say that they came to trial after six months, and the jury was ordered by the judge to bring in a verdict of no cause of action. In regard to a suicide last summer—these are things hardly necessary to be brought up in this discussion,—but I will say we receive 33 per cent of suicidal cases every year. Now, these cases are kept until that feature of the disease has subsided. Then, if the cases are chronic, they are sent to county asylums. Hence it is that we have such a large collection of these cases, and hence it is, also, that accidents of this kind do not occur in county institutions. As to brutal attendants, this also would hardly seem to be appropriate to this discussion. We have at the Buffalo Asylum an attendant to every seven patients. Some one here to-day claimed one attendant to ten patients as being greater than any proportion of attendants that could be found in State asylums. We have a night attendant to sixty patients. We have connected with that asylum a training school, and our attendants, after two years' training, are prepared to go out into the community, and I am pleased to say that many of them are at present in some of the best families in this State caring for cases of melancholia and mental disease. I feel confident that kindness does mark the character of our attendants in their treatment of patients.

In regard to incurability; to patients that are discharged as incurable. I deny that to be the fact. These cases are discharged from State asylums as chronic cases, simply under pressure. Many of them are discharged by the necessities of the case. The county officials come to the asylum, and they are pressing all the time to take away every case that can be cared for in their county institution. Cases are allowed in the charge of the county where we are not prepared to say that they will not get well. In this way, some are classed as recoveries, and possibly do recover in county institutions. On this question of discharge, you have here as the proof or criterion of recovery the opinion of the superintendent of the poor, or some member of the laity like him. You have not in these cases the opinion of any one of sufficient knowledge to decide that question. The question of recovery from insanity is oftentimes a more difficult one to decide than the question of the existence of the disease, and many of those that are discharged from these county institutions are simply cases that have become quiet and do not express their delusions freely and are allowed to go out. They are not recoveries; they very frequently come back to county institutions or drift into State institutions. I have in many instances allowed these cases to go to county institutions under the provisions of law and then within a few days had these same patients wandering around the asylum, having been discharged from the county house. I have heard afterwards superintendents, speaking of these cases, say, "why, so and so got well, and has been discharged."

Hon. HENRY A. REEVES, State Commissioner in Lunacy. Mr. President and Gentlemen: Until after arriving in this city on yesterday, upon other business which occupied me throughout the day and evening, I had not supposed that it would be thought desirable or useful that I should say anything in regard to the bill before you. As a member of the State Commission in Lunacy, whose powers and functions are considerably enlarged under the bill, it had seemed to me that it was appropriate, and perhaps would be wise, to

abstain from public participation in the discussion of the bill. It might be charged that the Commissioners were influenced in their advocacy of the bill by the bias of a desire to aggrandize their own official importance or their own authority over the general interest of the insane of the State. While honestly feeling able to disregard any such bias, and while convinced that it would not induce my associates in the Commission to depart a hair's breadth from what they might conceive to be their duty toward the bill, yet I feared that others might be led to impugn the sincerity of our motives, and that thus, whatever of truth and force there might be in the testimony we should be able to offer, its practical effect would be impaired and the bill possibly weakened instead of strengthened.

But I am told to-day that, in view especially of my personal relations to the subject-matter of this bill, it would be pertinent and perhaps helpful for me to speak, in its support, briefly. It has been urged that it was my duty to bear witness, if only in some hurried and partial way, to the facts pertaining to the question at issue under this bill, as I have found them to be. I have so far yielded to this view as to hastily prepare a brief of certain considerations which I deem it especially incumbent on myself to present to the committee; and for the sake of conciseness and clearness I have committed to writing what I desire to say.

Of course, gentlemen, I do not propose to treat the question from a medical or legal point of view; those aspects of it have been discussed in the recent report of the Lunacy Commission with sufficient fullness, explicitness and conservative, yet candid, reasoning. In the conclusions and suggestions therein contained I heartily agreed, although I did not and do not lay claim to any more than a very moderate acquaintance with the general subject. But, gentlemen, without rating my own power of observation or of perception unduly, I may be permitted to think that I do have some fairly accurate and just ideas of the practical bearings and the material interests which you are called on to consider in the debate over the provisions of this bill. It is a matter of large moment to the people of our State; it ought to have mature and careful deliberation from their representatives; and I am glad to know that you, gentlemen, properly estimate the great importance of the results which may follow your action upon the bill.

Now, gentlemen, I can, perhaps, best express some of the ideas which seem to me to apply most directly and most forcibly to the bill as a practical measure of State policy by reciting what has been my own experience, so to speak, in connection with the agitation of the subject during the past three or four years. I happen to be, and for sixteen years have been, a member of the board of supervisors of Suffolk County, one of the twenty counties exempted from the operation of the Willard act. As supervisor, it fell to my lot to have more or less to do with the county alms-house, and to get a general notion of the condition and care of the inmates, including a considerable number of what are called chronic lunatics. For ten or more years, in a somewhat cursory way, and without sufficient knowledge of facts or of the actual needs of the insane to make my opinions of much value, I noted what was to be seen in and about the building as to the facilities and the use made of them for caring for the lunatic inmates. Without any searching inquiry, without any considerable study of the matter, on impressions derived from this casual sort of observation, I formed an opinion that the insane inmates of our local institutions were fairly well provided and cared for. And, on the further point of the relative cost of their maintenance there as compared with the prices charged at State asylums, I formed the opinion that it was considerably cheaper to the several towns of our county to keep their lunatics in the county alms-house than it would be to send them to asylums. These opinions, while confessedly based on a very meagre understanding of the subject, were honestly held. Accordingly, when in 1888 the Curtis bill to remove the chronic insane from county institutions to asylums came before the Legislature, and again in 1889, when the Batcheller bill, for the same object, was introduced in Assembly, I, as supervisor of a town having a number of dependent lunatics, of both sexes, to pay for in asylums, and also a number to maintain at the county alms-house, felt it to be my duty to the town I represented and to the larger

constituency of a county in which nearly every other town was similarly situated, to oppose the enactment of those bills. I drafted resolutions of protest, and the board unanimously adopted them.

Subsequently to the adjournment of the Legislature last year, a representative of the State Charities Aid Association, resident in our county, who had made a trip of inspection of several of the county institutions, and of several State asylums, came before the board and depicted the difference in the care and treatment of the insane at the two places with such vigor and minute fidelity as to seriously impress the members; and this influence, together with the fact that, in the bill proposed to be introduced this year, and which is now undergoing debate, it would be provided that the State should bear the entire burden of cost of maintenance and transportation, thereby removing the financial phase of the question beyond the range of further controversy, our board passed a mild and non-committal minute, reserving definite action until further advised. When, later in the year, and in full view of the assembling of the Legislature, the question was informally discussed, the board declined and omitted to make any deliverance or to signify its wish to the two new members chosen to represent Suffolk County in both branches of the Legislature. My friend, Mr. Pierson, however, who represents us in assembly, was and is chairman of the board, and knows what the sentiment of that body has been and what it now is.

Meanwhile, seven months before, without solicitation or knowledge on my part, I had been chosen by the Governor and Senate as a member of the State Lunacy Commission. I entered upon its duties with this strong impression and prepossession of mind that the prevailing system of what is often called "mixed" care of the insane, which means caring for what are popularly termed "acute" cases in asylums and "chronic" cases in such county almshouses as had been authorized to retain them, was the best system to be maintained, especially in so far as the pecuniary side of the case was concerned, for at least the exempted counties. I retained this bent of mind for three or four months, or until the work of inspection of the two classes of institutions for the insane had been prosecuted long enough to enable me to see for myself the existing state of things in both, and to become conversant in some degree, as I had not been before, with the real needs of insane persons, so that I could institute, with some accuracy, a comparison between the care and treatment received by inmates of the two classes of institutions. Slowly, and, if the truth must be told, somewhat reluctantly, such is the pride of opinion once formed and the dislike to appear vacillating on public questions—I say slowly, and somewhat painfully, my mind was compelled to yield its prepossession and to accept a different view. The facts and conditions that forced themselves upon my untrained eye and into my unwilling mind were too much for mere theoretic impressions, however firmly felt, which had no sufficient basis in knowledge or truth. While not expecting to find in the county almshouses an ideal condition, while, indeed, disposed to be very moderate in my expectations, I did suppose that in nearly all the prime essentials of proper care they supplied all that could reasonably be required for the class of chronic lunatics which alone the law allows them to keep. I did not look for a standard of treatment as high as is maintained at the asylums, but I did look for such a measure of medical supervision and attention to all the bodily and mental needs of these unfortunates as could fairly be held to be indispensable. Desiring and intending to be very conservative in my demands, and to make due allowance for anticipated difficulties on the part of the authorities at these local establishments, yet, gentlemen, to my disappointment and deep regret, I was pained to discover that in nearly all the requirements of both a material and a moral kind applicable to such a case, the county almshouses fall far below the hope I had entertained.

I need not enter on an explanation of the reasons or circumstances of this failure; they are fully set forth in the Lunacy Commission's report, which I earnestly hope every member of the legislature will attentively read. On the side of humanity and simple justice to our afflicted fellow-citizens, who, having become insane, are dependent on public charity, there is no longer a shadow of doubt in my mind—there ought not to be in any mind—that with as little delay

as possible the present insane inmates of county alms-houses ought to be removed into the exclusive care of the State. And on the financial side of the question my mind has undergone a similar change. After a careful and prolonged study of the matter, I am convinced that if a measure of medical supervision, attendance, night watch, dietary, bathing, and other features of adequate care and treatment of insane persons was exacted at the county alms-houses, equal to or substantially approaching that maintained at the State asylums, the cost of keeping lunatics in county institutions would be increased proportionately in excess of what would have to be paid for keeping them in asylums. I believe no fair-minded person can take all the elements of this computation into account, and weigh them in the scales of even-handed justice, without being forced to the same conclusion. But this part of the question proceeds on the original plan of the bill that the State should charge the counties a small weekly price (\$1.50 I think was mentioned) for maintenance of their lunatics in asylums.

Even on this basis, I am satisfied that a large saving to the counties would have been effected by the surrender of their lunatics to State keeping. One of two things here. Either the State would or it would not consent to let affairs go on as they had been in the county alms-houses, after the Lunacy Commission's report had shown what deplorable defects, in respect to humanity and decency, are inseparable from their attempts to care for insane inmates. If the conscience and judgment of the people, when enlightened, would not consent to let such things continue, then, through the Commission the people would compel the counties to provide, in nearly every case at a large cost, additional accommodations and facilities for taking proper care of their insane, and would compel a largely increased yearly outlay in respect to attendance and medical treatment. Were that done, the average weekly cost of keeping their insane inmates would be swelled to a figure considerably above what the Curtis bill proposed to charge.

But all this pecuniary part of the question has been materially modified in the pending bill. Under it the State proposes to resume the entire and exclusive control of its dependent insane, and to pay the whole cost of their maintenance, and also of their transportation to and from asylums. That eliminates the *per capita* principle, and puts the entire burden on property. Instead of each lunatic maintained at public expense being separately charged to the county or town from which he or she came, the aggregate cost of keeping, treating and transporting lunatics in the State becomes a part of the State tax levied on the property of the State. I am not going to detain you, gentlemen, with an exposition of ideas which support this proposed new departure; enough to say that, in my judgment, it is upheld by valid considerations of sound public policy. But I do desire, in closing, briefly to point out, what must be apparent to all, that under the bill the cost to nearly or quite all the rural counties and towns of the State would be much less than it now is to maintain their dependent insane, whether they be kept in asylums or in local institutions.

A table setting forth this difference in detail has been prepared, and so far as I have had an opportunity to examine it, I believe it to be substantially correct and reliable.

A good deal more might be said in support of the bill on its practical side, but my time is limited, and I think the foregoing covers the main points.

The closing argument in favor of the bill was made by Dr. Carlos F. MacDonald, Chairman of the State Commission in Lunacy.

Dr. MACDONALD. Mr. Chairman: In view of the lateness of the hour and the fact that the main points at issue have been so thoroughly covered by the gentlemen who have preceded me in speaking in favor of the bill, I shall not detain you with any extended argument upon the provisions of the proposed act, but shall confine my attention rather to some allegations made here against the correctness of the statements of some of the conditions which have been observed, in the performance of their duties, as the Commissioners in Lunacy. First, I desire to say a word in regard to the Wisconsin system, which has been touched upon by the gentleman from Erie County as being an instance of county care only. I think it has been alleged that the State sys-

tem had been entirely abolished in that State. That is incorrect. The State system still obtains, and they have permitted in that State merely a brief temporary arrangement of county care which is not regarded as a success by any means by those best calculated to judge. I have here a letter from a former distinguished superintendent of an asylum in Wisconsin, a man of high rank as an alienist and of great experience in the care and treatment of the insane. I desire to read a few of the statements he makes:

"From the reports of the Wisconsin State Board one would suppose that the care of the chronic insane had been solved, and a system inaugurated which left nothing to be desired. The system exists, however, only in the reports. You know me well enough to permit me to say that I am not bigoted nor prejudiced in favor of nor against anything that presents progressive methods. I saw the Wisconsin method tried many years, and know of my own knowledge and observation that the so-called system is no system, and sooner or later will be superseded. Whenever a case of chronic insanity becomes the least bit noisy or destructive, he is permitted to escape from the county institution; is re-arrested, and sent on a new certificate to one of the State institutions. The laws are imperative, and require the transfer of chronic cases to county asylums, and a noisy case is sent back to be again arrested, returned and re-returned. This is no exaggeration or isolated case; it occurs over and over again."

Gentlemen, it seems strange in this enlightened age that it should be necessary to say that insanity is a disease, a bodily disorder, and consequently a medical question, something that should be left to the determination of the medical profession. I do not think that any gentleman here outside the medical profession even admitting that they are incurable, that he would pretend to deal with cancer or heart disease for instance. Why then they should single out insanity and say that they are competent to deal with that disease is a mystery to me. Certainly, in no forms of chronic disease occurring in families of our friends do we feel that treatment should be abated; why should we not have this same feeling with regard to insanity? The question of insanity is one of great importance indirectly to every tax-payer in the State.

It is of greater importance directly to every humanitarian and to every family in the State. In fact it may be said that not one family in ten escapes the visitation of insanity either near or remote. Hence, it is a broad question, and one that should be determined upon its merits, and upon the rules which science has shown to be the best. The lowest standard by which the question can be gauged is the money value.

Some statements have been made with regard to the state of things described in the report of the State Commissioner in Lunacy, and I have read somewhere the pamphlets of one Holmes, a person calling himself a doctor, but who is not a doctor. One gentleman here to-day has seen fit to deny the statements of the Commissioners. I want to say for myself, and my associates on the Commission that we are prepared to substantiate the statements of that report under oath, if necessary. The statement of things occurring at the time of our visit to Madison County is absolutely true. It was only by a mere accident that we discovered that the dilapidated building referred to in the report was occupied by the insane. We had inquired of the person who accompanied us if we had seen all the parts of the poor-house, in which the insane were in custody. He said we had. Just as we were about to leave a woman rushed up and said that a keeper and a woman had placed her in a bath tub and then afterwards had taken her up to the rear where they kept the filthy men. The keeper had not told us of this building. We immediately expressed a desire to see it, and found this condition of things exactly as described. The beds and bedding were the filthiest I have ever seen in any institution. The bed clothing consisted of tick with a very meagre amount of straw, and over this a cotton quilt. The bed was saturated with human filth; and had evidently been so for days and days. In the main room there was a coal stove, and a screen was used as a door for the purpose of allowing the heat to go through into this adjoining part, and here in this annex to this old building this old woman was found.

During our visit at that institution, and this was the fact in many other institutions, connected with the county poor-houses, we found that all employes were classed as attendants, and when we asked if they had not more attendants upon the insane, they said that they were short just then, but that they had more. The only lights in this Madison County institution are those in the hall leading to the water-closet. These patients sit on these wards in the darkness until they get ready to go to bed.

It has been exceptional in my observation of these institutions to find one of these so-called county asylums that was not a part of the poor-house. It has been an exception to find one where they did not bathe from two to six patients in the same water. When I asked the superintendent of the poor of Madison County, a cleanly, nice appearing man, how he would enjoy being the fifth or sixth person to be bathed in the same water, he said that he did not think he would like it very well. As to the criticism passed upon the Commissioners for not correcting these abuses, I would say that we made very strong recommendations in the visiting books of the counties that we visited for the correction of the most glaring defects that we found, and in no case have we found that the supervisors of these counties took any action towards correcting them, with the possible exception of Chenango County, where the supervisors empowered the keeper of the poor-house to employ one additional woman. This is the county institution where the man took care of the women patients. But all of them lack in the essentials of proper care; lack in proper attendance night and day; none have night attendants, or any water supply for bathing facilities; there are no records, in fact, everything which an institution for the care and treatment of the insane should possess is lacking, and if they should provide these things it would undoubtedly cost them a great deal more than it would to care for their insane in State asylums.

There is one institution which has kept separate account of the paupers and insane, and in that county the cost has been from \$2.70 to \$2.82 per week, as against \$2.25 per week at Willard. The buildings in this county ought to be torn down immediately, and if accommodations were available in the State asylums we should order all the patients taken away at once. There are 150 of them there. As to the herding of the insane in State asylums, I have never seen in them anything to compare with the crowding in county institutions. In Queens County fifty patients occupy a room 16x60 feet, sitting there staring at the bare walls, with no diversion, no medical supervision, in fact none of the ordinary essentials for the care of sick people.

The hearing was then at 6.30 p. m. brought to a close.

ABSTRACTS AND EXTRACTS.

TWO CASES OF CATALEPSY.—Dr. Barlach reports two cases of catalepsy in which the conditions usually regarded as predisposing to that state were wanting. The patients had never suffered from any affection of the nervous system, (hysterical or other), and neither had neurotic inheritance. The first case concerned a girl, *æt.* six years. She was attacked by scarlet fever with "diphtheria" in April; the disease ran a favorable course, so that the child appeared to be well the following month. But suddenly, and with no evident cause, and to the great surprise of the physician, catalepsy appeared; and the appearances were such as are seen in a marked case. All means adopted with a view to restoration of consciousness (electricity not at hand) were ineffectual; the state passed into one of sleep, or "sleep-like," which lasted twenty-six hours. Consciousness never returned. A complete palsy of the right side gradually showed itself, whilst on the left side the limbs became the seat of violent convulsions, only separated by brief intervals. Death took place on the fourth day. The autopsy gave an entirely negative result. It should be added that the child had a markedly chlorotic aspect when otherwise seemingly well.

The second patient was a woman, *æt. circa* 26. On the 24th June she had a normal confinement. On the 26th, complained of headache, thirst and discomfort; no rigors. Nothing found on examination of genital passages and organs. On 28th, a thrombus detected in the right popliteal vein, causing swelling of the leg below. Temperature raised. By August the swelling and pain had greatly diminished, but otherwise the general state was worse. Restlessness, headache, giddiness and thirst. Patient lay with closed eyes and was hypersensitive to sound. On Aug. 6th the friends, thinking her worse, hastily sent for the physician, who found completely developed catalepsy. A curious appearance, which, so far as the author is aware, had not before been described, is the following. When a limb—e. g., the arm—was placed in a certain position, and immediately allowed to drop, it slowly re-assumed that position, describing the same curve through which it had previously been taken. If, on the contrary, the limb was held in the position for a brief period, it continued there—as is usual in catalepsy. In this patient, also, consciousness, lost at the commencement of catalepsy, did not return; and death occurred next morning. No autopsy was made. The author, summing up in conclusion, states his belief that the blood had an essential part to play in both the cases: in the former, perhaps through its chlorotic quality; in the latter, either through the same quality, or—which seems to the author more likely—through the medium of an embolus of a cerebral vessel.—(*Der Irrenfreund*, 1 and 2, '89).
E. G.

DELIRIUM TREMENS IN CHILDREN.—Dr. Demme is quoted from *Reichs. Med. Anzeiger*, No. 10, as recording a series of such cases. The parents were themselves drunkards, in the cases mentioned, and supplied liquor to their offspring. Four of the children suffered from epilepsy, in consequence,

During our visit at that institution, and this was the fact in many other institutions, connected with the county poor-houses, we found that all employés were classed as attendants, and when we asked if they had not more attendants upon the insane, they said that they were short just then, but that they had more. The only lights in this Madison County institution are those in the hall leading to the water-closet. These patients sit on these wards in the darkness until they get ready to go to bed.

It has been exceptional in my observation of these institutions to find one of these so-called county asylums that was not a part of the poor-house. It has been an exception to find one where they did not bathe from two to six patients in the same water. When I asked the superintendent of the poor of Madison County, a cleanly, nice appearing man, how he would enjoy being the fifth or sixth person to be bathed in the same water, he said that he did not think he would like it very well. As to the criticism passed upon the Commissioners for not correcting these abuses, I would say that we made very strong recommendations in the visiting books of the counties that we visited for the correction of the most glaring defects that we found, and in no case have we found that the supervisors of these counties took any action towards correcting them, with the possible exception of Chenango County, where the supervisors empowered the keeper of the poor-house to employ one additional woman. This is the county institution where the man took care of the women patients. But all of them lack in the essentials of proper care; lack in proper attendance night and day; none have night attendants, or any water supply for bathing facilities; there are no records, in fact, everything which an institution for the care and treatment of the insane should possess is lacking, and if they should provide these things it would undoubtedly cost them a great deal more than it would to care for their insane in State asylums.

There is one institution which has kept separate account of the paupers and insane, and in that county the cost has been from \$2.70 to \$2.82 per week, as against \$2.25 per week at Willard. The buildings in this county ought to be torn down immediately, and if accommodations were available in the State asylums we should order all the patients taken away at once. There are 150 of them there. As to the herding of the insane in State asylums, I have never seen in them anything to compare with the crowding in county institutions. In Queens County fifty patients occupy a room 16x60 feet, sitting there staring at the bare walls, with no diversion, no medical supervision, in fact none of the ordinary essentials for the care of sick people.

The hearing was then at 6.30 p. m. brought to a close.

ABSTRACTS AND EXTRACTS.

TWO CASES OF CATALEPSY.—Dr. Barlach reports two cases of catalepsy in which the conditions usually regarded as predisposing to that state were wanting. The patients had never suffered from any affection of the nervous system, (hysterical or other), and neither had neurotic inheritance. The first case concerned a girl, *æt.* six years. She was attacked by scarlet fever with "diphtheria" in April; the disease ran a favorable course, so that the child appeared to be well the following month. But suddenly, and with no evident cause, and to the great surprise of the physician, catalepsy appeared; and the appearances were such as are seen in a marked case. All means adopted with a view to restoration of consciousness (electricity not at hand) were ineffectual; the state passed into one of sleep, or "sleep-like," which lasted twenty-six hours. Consciousness never returned. A complete palsy of the right side gradually showed itself, whilst on the left side the limbs became the seat of violent convulsions, only separated by brief intervals. Death took place on the fourth day. The autopsy gave an entirely negative result. It should be added that the child had a markedly chlorotic aspect when otherwise seemingly well.

The second patient was a woman, *æt.* *circa* 26. On the 24th June she had a normal confinement. On the 26th, complained of headache, thirst and discomfort; no rigors. Nothing found on examination of genital passages and organs. On 28th, a thrombus detected in the right popliteal vein, causing swelling of the leg below. Temperature raised. By August the swelling and pain had greatly diminished, but otherwise the general state was worse. Restlessness, headache, giddiness and thirst. Patient lay with closed eyes and was hypersensitive to sound. On Aug. 6th the friends, thinking her worse, hastily sent for the physician, who found completely developed catalepsy. A curious appearance, which, so far as the author is aware, had not before been described, is the following. When a limb—e. g., the arm—was placed in a certain position, and immediately allowed to drop, it slowly re-assumed that position, describing the same curve through which it had previously been taken. If, on the contrary, the limb was held in the position for a brief period, it continued there—as is usual in catalepsy. In this patient, also, consciousness, lost at the commencement of catalepsy, did not return; and death occurred next morning. No autopsy was made. The author, summing up in conclusion, states his belief that the blood had an essential part to play in both the cases: in the former, perhaps through its chlorotic quality; in the latter, either through the same quality, or—which seems to the author more likely—through the medium of an embolus of a cerebral vessel.—(*Der Irrenfreund*, 1 and 2, '89).

—E. G.

DELIRIUM TREMENS IN CHILDREN.—Dr. Demme is quoted from *Reichs. Med. Anzeiger*, No. 10, as recording a series of such cases. The parents were themselves drunkards, in the cases mentioned, and supplied liquor to their offspring. Four of the children suffered from epilepsy, in consequence,

it is stated, of the excess in drink; but true delirium tremens occurred in many other cases. In one instance, wherein marked hallucinations, excitement, confusion, and sleeplessness were present, the child (æ. 5 years) had been given a kind of brandy daily for two years by the father; a glass of Hungarian wine daily by the mother; and of an evening had been in the habit of drinking beer with the father, who kept a retail establishment. —*Ibid.*

E. G.

HYPNOTISM.—Dr. Holst, (Riga), in his report, makes mention of cases under treatment in his institution in which hypnotism was, in one respect or another, successful. The patients were of the hysterical class. In the first case, that of a highly educated woman, æt. 37, hypnosis was produced by suggestion of sleep very quickly. It was now suggested that, on waking, she would have a ravenous appetite—as she had been taking next to nothing, and was very poorly nourished. So well did the suggestion operate that a day or two later it was necessary to re-hypnotise the patient and suggest a merely normal appetite. This also obtained, and she gained in weight 14 pounds. This patient also suffered from severe spasmodic attacks, of a hystero-epileptic nature. Cessation of these cramps could only be obtained, on suggestion, for 24 hours; and the renewal of the appetite was the only therapeutical success which could be pointed to.

In a second case, marked by insomnia, sleep was satisfactorily restored by suggestion during hypnosis. In this patient menstruation had been in abeyance for eight months. The menses appeared at a definite hour and on a fixed day—"to order." Thereafter the suggestion was repeated monthly, and the courses so regulated that they appeared spontaneously at the end of four months; and thenceforth menstruation was normal. The writer then gives other cases in which he gave sleep in cases of insomnia. He adds that his enthusiasm for this method of treatment was cooled by the negative outcome of experiments undertaken contemporaneously with those above mentioned. —*Ibid.*

E. G.

A CASE OF SO-CALLED SOUL-BLINDNESS.—Dr. Siemerling, of the Charité, Berlin, reports a case at length, which at first sight might appear to come legitimately under the heading "*Seelenblindheit*," in the sense of Munk. That it was not, however, a pure case of the kind the author makes it his task to show. The patient, a carpenter, æt. 54, came home from his work complaining of "darkness before the eyes." This he noticed after being suddenly seized with vertigo. Consciousness was at no time lost. No changes of motility or sensibility. Previous history indicated good health; no syphilis. He was admitted three weeks after above attack. There was then discovered a bilateral hemianopsia, absolute on the right, partial on the left. He could distinguish light with either eye. Optical media and fundi normal. A considerable diminution of acuteness of vision was ascertained. Moreover, he was quite unable to distinguish colors; all were described as grey, now brighter now darker. No aphasia (motor) and no word-deafness. In writing, left a word or letter out here and there. The only note-worthy psychical affection noticed was deficiency of memory. When some object was held before him he asked permission to handle it, not being "able to see it" prop-

erly. When after orientating himself by means of touch, smell, and hearing, the patient could not always at once give an object its correct designation, but needed to go over it carefully first. In the sequel, the acuteness of vision increased, and color-sense returned in the left halves of the visual fields; the right halves were hemianopic still on discharge. With the return of visual acuteness and color-sense there returned ability to name objects correctly when he saw them—at once. This peculiar course leads one to believe (says the author) that the visual disturbance owned as its cause the diminished sharpness of vision *plus* the monochromatic state; and in support of this belief he instituted an experiment upon himself, artificially lowering the acuity of his vision until it reached the standard of patient; and illuminating the trial-room monochromatically. He thus produced in himself peripherally the state which, in patient, had (apparently) a central cause; with the result that he was unable to recognize simple objects without touching them. The obvious conclusion of the author is that it is sufficient, in order to produce experimentally a condition similar to soul-blindness, merely to lower the degree of acuteness of vision and institute a monochromatic state. It is, in fact, shown that this patient's inability to name objects upon "seeing" them was due to the deprivation of some of the factors of the image of perception (*Wahrnehmungsbild*). But when allowed to make use of data other than optical, (sense of touch, of hearing, etc.) he could properly designate the object. And that the image in memory (*Erinnerungsbild*) persisted was evident, since he could describe and give the appearance of an object named to him. Hence there was here no true soul-blindness. Cases like that communicated should, the author says, warn us to be cautious in interpreting statements bearing upon this question, which is still a recent and vexed one.—*Archiv. f. Psych.* XXI, 1.

E. G.

HYPNOTISM IN GERMANY.—At a meeting of the Psychiatric Society at Berlin, Dr. Sperling gave an address upon "hypnotism in its relation to present medicine," with demonstrations. The present position of hypnotism in scientific medicine in Germany is by no means sure or recognized. Now that so many young doctors, says the author, are eagerly practising it, the question arises: "Does hypnotism deserve that science should take it up? Cannot trained energies, now devoting time and pains to this subject, be better employed?" In answer to these questions, and to the further one, "has hypnotism a future?" The author is decided. Hypnotism has a future, which must be given over in charge to the medical man alone; and in its practice some definite purpose must ever be kept in view—whether scientific or therapeutical. Reference is made to hypnotism in the mentally diseased; and the outlook, in the writer's opinion, is a poor one.—*Zeitschr. f. Psych.*, Vol. XLVI. pt. iii.

E. G.

WARM SAND-BATHS IN THE NEUROSES.—At the same meeting Dr. Müller, Blankenburg, gave his experiences of artificial warmth as a method of treatment in different neuroses. After mentioning the different forms of baths, he gave an account of a particular variety which, whilst it effectually raised the body temperature, did not submit the head and organs of respiration to a

VOL. XLVI—No. IV—J.

high temperature, after the manner of hot-air and vapor baths. He referred to dry, warm sand-baths, by means of which most favourable results had been obtained in neurotic conditions. He has seen states of depression and insomnia considerably benefited in this way, as well as neuralgic affections, facial paralysis, and hemicrania. The abstraction of water from the body is considerable; and uric acid and urea are excreted in abundance. The condition of the heart should, so far as possible, be ascertained, prior to the use of the bath. In conclusion the author observes: "I am of opinion that the warm sand-bath merits more attention—as being the best and simplest method of warming the body throughout—than has hitherto been bestowed upon it; and that we who deal with the nervous system have especial occasion to make use of it, since, more than any other remedy, it is capable of exercising a stimulating and strengthening influence over that system."—*Ibid.*

E. G.

ALTERATIONS OF THE MUSCLES IN PSYCHOSES.—At the fourteenth session of the Association of Neurologists and Alienists of Southwestern Germany, in May last, (*rep. in Archiv. der Psychiatrie, XXI, 2.*) Dr. Fürstner, of Heidelberg, read a paper on the muscular changes in simple psychoses, of which the following is an abstract:

The author first mentioned the alterations in the muscles met with in infectious and chronic disorders, which lead to extensive wasting and loss of power, and then spoke of the changes, first described by himself, but more fully studied by Buckholz, in the way of waxy degeneration in acute delirium and allied conditions. He then called attention to a disorder that might be looked upon as a simple functional psychosis, but which, through certain somatic complications, takes on the character of a grave disease, and which therefore may be designated "hypochondria gravis." In already weakened individuals (usually women), there sets in a hypochondriacal depression with various sensations in the throat, abdomen and bowels, analagous to the hallucinations of hypochondriacs, obstinate constipation and usually loss of appetite. Later the painful sensations become more intense and occupy all parts of the body, there is a feeling of weakness in the upper and lower extremities, and inability to stand or walk. Increased patellar reflex, notably heightened muscular irritability to mechanical stimuli, with later appearing muscular tension and tendency to contractures from the more marked symptoms. Dr. Fürstner considers the prognosis as unfavorable; all his observed cases succumbed to pulmonary affections. In one case he found, during the patient's life, alterations in the muscles, granular condition of muscle substance and muscular proliferation. Post-mortem—there was found advanced atrophy of the adductors, recti, biceps, pectoralis, and thumb musculature, together with marked increase of nuclei and central vacuoles. Since fever or other somatic symptoms were wanting in the clinical history, the explanation of these conditions must be looked for in the psychosis and the impaired nutrition. But this last is by no means always attended by alterations in the muscles, nor do they necessarily accompany the clinical syndrome. Dr. Fürstner holds it as possible that the obstinate constipation may be connected with the changes in the recti and intestinal muscles, and that the frequent lung complications may be explained through alterations in the muscular tissue of the diaphragm.

Next the author called attention to the changes in paralytics. He found in cases of disease of the lateral columns advanced atrophy of the biceps, adductors, thumb-muscles and psoas, together with unusually marked formation of vacuoles. First, nucleus-like formation appear in the muscles, which formed vacuoles, and these uniting destroyed the muscle fibrillæ altogether. Besides the vacuoles and the atrophy there was found marked central nuclear proliferation, also in the perimysium. These changes were not found in all cases.

H. M. B.

THE PROVISION FOR THE INSANE IN ST. PETERSBURG.—The first hospital for the insane in St. Petersburg was founded in 1779. In 1789 the population of that city was 217,948, and there were altogether forty-four beds in the hospitals for the insane, or one for every 4,953 inhabitants. One century later the condition is very different; with a population of 928,016, the city of St. Petersburg possesses at present a provision of more than 2,035 beds for the insane (in both the public and private establishments), that is to say, at least one to 456 inhabitants.—*Progrès Médical*, 1889, No. 51.

H. M. B.

CHLORALIMIDE.—M. Choay (*Jour. de Méd. de Paris*, December 22, 1889,) describes this new compound a derivative of chloral and ammonia conformed with the combination known as chloralamide, which is an entirely different product obtained by the combination of chloral and formamide, and which would in accordance with Jacobsen's nomenclature, be called chloralformiamide.

Chloralimide is a colorless, odorless, tasteless substance crystallizing in long needles, fusible at 168° C. It is insoluble in water, but dissolves readily in strong alcohol, and is still more soluble in ether, it dissolves also in chloroform and fatty substances. It does not change from exposure to the air, light, or humidity; in fact it is a remarkably stable compound.

M. Choay thinks that therapeutically it will be found more active than chloralamide since it gives out more chloroform, and its tastelessness and durability will be of great advantage in a practical point of view. It would seem, however, advisable to await the publication of the results of physiological experiments which he says have been begun before employing it on human patients.

H. M. B.

THE ACCUMULATION OF BROMIDES IN THE SYSTEM.—M. Doyon, *Rept. de Pharm.*, June, 1889, (absts. in *Jour. de Méd. de Paris*, November 10,) publishes the results of chemical investigation of the brain and liver of an epileptic who had died suddenly after steady bromide treatment with large doses. He found that the brain contained 1.934 gram. of bromide of potassium, and that the liver contained .73 gram. Hence he concludes that the drug localizes itself in the brain.

M. Doyon does not infer from this that bromide treatment is hurtful, as daily experience, as well as physiological experimentation, have demonstrated the feeble toxicity of the drug.

H. M. B.

PROVISION FOR INSANE CRIMINALS.—In March, 1889, M. LeJeune, Minister of Justice, sent a communication on this subject to the Royal Belgian Academy of Medicine, containing a series of questions, in substance, as follows: (1) Can a single asylum, equipped for the care of all forms of insanity, be utilized without serious inconvenience for the care of all the criminal insane without destruction? (2) Would it do to confine in the same asylum the insane who have undergone sentence or have escaped it as being irresponsible, who are yet free from dangerous tendencies? (3) If the treatment required for insane criminals be extended to all the insane of dangerous tendencies, what scientific definition can be given of these that can be used in legal enactments? (4) Will this definition include dementia showing tendencies to offences against good morals and criminal assaults? (5.) What offences, recognized by criminal law, should place the offender, if he subsequently falls into dementia, or if he is released, on the ground of irresponsibility, in the class of so-called criminal insane? (6) Should the relations of patients to their friends and families, desirable in the treatment of ordinary insane, be kept up to the same extent with the class of criminal insane?

These queries which cover all, or nearly all, the points involved were submitted to a commission consisting of MM. Lefebvre, Masom and Semal, which reported on the 25th of May following. The discussion on this report was quite lengthy, and was participated in by MM. Lentz, Vlemineh, Hegne and others, and the following responses to the questions of the Minister of Justice were finally formulated and adopted, the numbers here given corresponding to the questions:

(1) "It is expedient to establish a special asylum for the confinement and care of all the dangerous insane without distinction.

These insane comprise the four following classes:

"a. The insane guilty of an act counted as crime (larceny, rape, murder, arson, pederasty, &c.)

"b. Convicts becoming insane after sentence.

"c. Lunatics already confined who are guilty of or have attempted to commit criminal acts.

"d. Every insane person on whom examination has demonstrated homicidal instincts, irresistible and violent impulsions, or perverse morals or habits justifying his separation from other patients on account of their safety or the moral respect due them. In this class are found certain epileptic and alcoholic cases and cases of moral and instinctive alienation, &c.

(2) "No; if the criminal act is considered as a minimal one, that is, if it is a matter of no grave consequences either to life or to the welfare of others, or to public morals.

(3) "The actual state of our psychiatric knowledge permits us to enumerate the different categories of the dangerous insane, as indicated in the answer to the first question.

"It is not possible to give a scientific definition of dangerous mental alienation.

(4) "Yes, as regards criminal assaults, which always indicate a perverse activity; No, as regards the unconscious offences due to the senility of the offender.

(5) "To the actual crimes as indicated in the responses to the first question.

(6) "No; these relations may be prohibited."

These answers indicate a sufficiently comprehensive definition of the criminal and dangerous insane, though a specific one is, as stated, impossible.

H. M. B.

PATHOLOGICAL EFFECTS OF COMPRESSED AIR.—Professor Gatsaras, of Athens, has published, in *Archives de Neurologie*, an elaborate study of this subject, extending through numbers 47-55, (September, 1888, to January, 1890). It comprises a review of the history and literature of the subject, clinical observations on fifty-seven cases occurring among men engaged in gathering sponges in submarine armor, and experimental researches on dogs subjected to the same conditions. The latter confirmed the conclusions of Bert, that the injurious effects of compressed air are due to accumulation of gas—mainly nitrogen—in the blood, under pressure, and its liberation when the pressure is removed. In his autopsies on dogs that showed morbid symptoms after immersion in submarine armor at depths which had proved injurious to men, he uniformly found gas in the heart and blood-vessels, with gaseous embolisms and, more rarely, hemorrhages, in various parts of the central nervous system.

The circumstances which favor the development of this condition are three in number:

First. Degree of compression. Accidents seldom took place unless the diver had worked at a depth of more than twenty fathoms.

Second. Duration or frequency of immersion. In most cases the patient had either remained under water a long time, or made repeated trips at short intervals.

Third. Rapidity of decompression. If the diver is drawn up quickly from a great depth, a large amount of gas is set free at once. If, on the other hand, the pressure is gradually diminished, the gas is liberated slowly, and opportunity is given for its exhalation through the lungs.

With this understanding of the pathology of the affection it is easy to understand the complexity and variety of the symptoms, due to the varying seat and extent of the lesions. He classifies the resulting affections as nervous and extra-nervous, of which the former are more common. The nervous troubles may be spinal, cerebral or cerebro-spinal. Spinal affections he classifies as lateral, postero-lateral and posterior, with symptoms appropriate to the situation of the lesion. They may be transient or, as seems to be more common, to a greater or less extent permanent.

The cerebral attacks may be paralytic, with localizing symptoms, as aphasia and word-deafness, or mental, with delirium or unconsciousness.

In the cerebro-spinal form cerebral and spinal symptoms co-exist in various combinations.

Death may occur, either suddenly, or as a more or less remote effect of the damage to the nervous system.

As extra-nervous symptoms have been observed: Muscular and articular pains, general emphysema, swelling of the thyroid gland, and violent epigastric pains from distension of the stomach.

But few autopsies of such cases have been recorded. The lesions found have been softening and hemorrhage in the affected parts of the nervous system, with secondary degenerations.

The symptoms, as a rule, do not show a progressive tendency, and recovery or improvement, under appropriate treatment, is the rule.

The prophylaxis follows naturally from the etiology. When it is necessary for the diver to go to a great depth, he should remain under water but a short time, and should be raised to the surface slowly and with intermissions. Repeated immersions, in such cases, should only be undertaken at long intervals. Persons suffering from pulmonary disease should not engage in this employment, and fatigue and a full stomach should be avoided. In case of the occurrence of accidents, immediate recompression, to a moderate degree, should be at once employed, to promote the re-absorption of the gas. The author has also found this measure, systematically employed, of use in cases of permanent injury, many of his patients having improved greatly by resuming their occupation at moderate depths. The cautery, ergot, and an appropriate hygiene are, apart from this, his principal dependence.

BOOK REVIEWS.

A Text Book of Mental Disease, with Special Reference to the Pathological Aspects of Insanity. By W. BEVAN LEWIS, L. R. C. P., (Lond.), M. R. C. S., Eng., Medical Director, West Riding Asylum, Wakefield; Lecturer on Mental Diseases at the Yorkshire College. With illustrations in the Text, Charts, and eighteen Lithographed Plates. Philadelphia: P. Blakiston, Son & Co. 1890.

Few readers will be disposed to question that Dr. Lewis brings to his task a fully equipped mental armamentarium. One need but glance at the pages of his book almost at random, to find evidence of the keenest appreciation of the trend of modern psychological thought; the generalized records of 4,000 carefully studied cases, sufficiently attest practical alienistic knowledge; while the more than 2,000 autopsies that have furnished data for the pathological section give an authoritative stamp to the obverse of our author's certificate of credentials. Many of us have looked forward with enthusiastic expectancy to the appearance of this work; and, now that it has come, it may be said, once for all, that every page testifies to the ample fruition of an abundant promise. It is a book in many respects remarkable, and in some respects unique among English works of its kind. We can but glance in a very general way at its scope and bearings, leaving individual excellencies and defects to the readers of the volume itself, who, we trust, will be as numerous as the ranks of alienism.

The work consists of three principal sections—an "Anatomical and Histological," a "Clinical" and a "Pathological." The first chapter begins, without apology, explanation or comment, to detail the anatomical characteristics of the cerebro-spinal system, as if to do so were the most natural and conventional of methods. Conventional this method certainly is not; nor does it appear that a section on the *normal* condition of any organ enrolls itself in strict consistency under the title "Mental Diseases." Nevertheless, we welcome this section as one of the most valuable portions of the book, and we believe that it will be generally so received. It is a necessary and desirable portion of a work on insanity simply because alienists in general are insufficiently acquainted with the details of structure of that set of organs which, of all others, ought to interest them. It will be well received because we are beginning to feel our deficiencies,—a recognition of ignorance, being, here, as elsewhere, precursory of a desire for knowledge.

In this anatomical section, perhaps the chiefest point of interest relates to the debatable ground of the lymph-connective system of the brain. The existence of perivascular and pericellular spaces as essential normal constituents of brain architecture, the author regards as established,—a view which many of us who have long been similarly minded will regard with satisfaction. Still more significant and interesting is the author's view that the so-called "spider cells" of the cortex are in reality "essential elements of the lymph-connective system." The expressive term "scavenger cells" which he applies to them gives a clue to their assumed action. Referring the reader to the book itself for details, we must content ourselves here with the observation

that the rôle of the scavenger cell furnishes our author's key to the solution of many problems of encephalic action, normal and pathological.

At the conclusion of the remarks on the lymph-connective system, there occurs a paragraph that conveys a more tangible view of the real nature of the cortex than any similar expression we remember to have seen: "If we take a comprehensive view of the whole system—the channelled vascular tracts, the saccular ampullæ along the capillary tube, the canalicular-like formation of the lymph-connective elements, all imbedded in a homogeneous matrix of neuroglia—we cannot but be struck by the sponge-like arrangement of the cortex, and the facilities so afforded for the free circulation of plasma throughout its most intimate regions."

We must pass with the briefest mention, the all-important chapters on cortical lamination, distribution of the ganglionic elements, etc., but we trust that no reader of the work will pass these chapters without giving them the careful perusal that they merit.

The chief merit of the clinical section is that it emphasizes the modern doctrine of correlation of parts and of functions, implicitly and explicitly teaching that the hierarchy of mind is a unified hierarchy, no single member of which can be deflected from its normal bearings without proportionately deflecting all its allied members. Bearing this fundamental fact always in mind, the author pays little heed to mere arbitrary classification and systems of nomenclature, which have so often proved the bane of alienists—as if terminology could add to or detract from objective knowledge, and were the end, not the means. The present expositions, on the contrary, are psychological studies, and if some classification seemed absolutely necessary to give definiteness and tangibility to the studies, such classification is everywhere subordinated to its true position. Broad generalizations are mapped out, the student being warned meanwhile that the names indicate, not fixed and invincible morbid entities, but different stages or degrees of psychic reduction. The old tripartite autocracy—Intellect, Emotion, Will—wherein Will occupied the relative position held by Cæsar in the historic Triumvirate, finds no place in this system. A deeper, broader, yet simpler system has supplanted this arbitrary but long triumphant despotism of the mind. It is no unique position which our author holds in this regard. He is merely abreast the current of the times. Nor is it difficult to trace the stream to its fountain head in the Synthetic Philosophy of Herbert Spencer. The learning power of that philosophy is exemplified here as in the work of every other student of psychology who is *en rapport* with the time in which we live. And so we find in this clinical section, broad outlines instead of narrow paths; generalizations rather than individual delineations, yet individual delineation is not altogether ignored,—indeed, many cases are held up before us in illustration, and they are drawn graphically and well. But as a whole, the studies are more than this. They are a philosophical collocation—a perspicuous inductive correlation—of the 4,000 cases from which the author's practical knowledge is drawn. It is entirely consistent with the plan of the work, as laid down in the preface, that etiology and treatment find little place here. But it is to be hoped that a future edition will so enlarge its scope as to include these practical departments.

Of the pathological section—by far the most interesting and important portion of the work—we would gladly speak at length, but limitations of

space make it quite impracticable to do so. This section is too prodigal of significant observations to readily lend itself to condensation, but we may mention, as among the more important lines of investigation, (1) studies bearing upon the rôle of the scavenger cell; (2) generalization regarding the different effects of primary implication of cells *vs.* that of cell-processes; and (3) the somatic basis of epilepsy. With especial satisfaction we note the author's continued belief in the authenticity of "miliary sclerosis, colloid degeneration," etc., as records of pathological processes and not artificial products or *post-mortem* changes. His reasons for so adhering to the old belief, in opposition to the pathological nihilism which certain observers have promulgated, seem to us abundantly conclusive.

As regards the decidedly important but not absolutely essential matter of style and manner of presentation of the text, it is not possible always to speak with quite the same degree of enthusiasm with which we have regarded the essentials of this book. We would criticise, also the rather whimsical method adopted by the publishers of attracting the eye by means of arbitrarily distributed heavy type, as being appropriate to a catalogue or a primer rather than to an advance work for the use of scholars. We commend, on the other hand, the heavy type paragraph, headings, as useful assistance to rapid reference; and, in general the typography, paper and general make-up of the work, as reaching a high degree of excellence. And it would be quite impossible to say too much in praise of the illustrations, which really illustrate, and are as different as can well be imagined from the caricatures that usually obscure the text of such works as the present.

With this brief mention we must leave a work which we regard as the "last word" of present alienism. True this book is only a step beyond some of its predecessors, but evolution does not proceed by leaps, and it suffices that the step is really progressive and not retrogressive. Let no one interpret this as meaning that this work will long remain the alienistic ultimatum. All that is claimed for it is that it makes the farthest present advance of alienism. Others than its author are working along the same lines, following the same master, and reaching similar results. These are days not alone of "dissolving," but—what is far more—of "evolving views." We live at the termination of a momentous epoch in the evolution of alienistic knowledge—the epoch which, having banished Metempiricism at last welcomed Psychiatry. The classical books of the past decade are the exponents of that epoch. The present work assumes unchallenged the ground for which its predecessors battled, and points exultantly to the fertile fields of the new epoch, an epoch in which somatic studies will take the place of metaphysical speculation. Insanity, a symptom of disease, has been profoundly studied. The old epoch gave us descriptions of the symptom that we need not care to surpass. But the new epoch invites us to turn to the diseased structure underlying the symptom—to search for the disease itself. In this direction lie all the possibilities of alienism. Dr. Lewis' book perhaps more explicitly than any of its predecessors, points the way; and our enthusiasm regarding it results not more from the actual achievements of the work itself than from the impetus which we believe the work will give to study in the lines which it suggests.

H. S. W.

Annual of the Universal Medical Sciences. A yearly report of the General Medical Sanitary Sciences throughout the world. Edited by CHARLES E. SAJOUS, M. D. Philadelphia and London: F. A. Davis, Philadelphia, Publisher.

The Annual of the Universal Medical Sciences for 1889, like its predecessor, appears in five volumes, and reviews in a concise manner the medical literature of the year. Some idea of the vast amount of labor involved in the preparation of the Annual may be had from the fact that it presents the essential points and arguments of an immense number of articles, published in many countries, and in no less than 754 journals and 234 books and pamphlets. We are of the opinion that the value of a work of this character, when conscientiously performed by men of ability cannot be overestimated, for it brings within easy reach of the reader nearly all of the important new ideas that have found their way into print during the year, and thus enables him to keep in touch with the progressive spirit of the times. We have had occasion to make frequent reference to the Annual for 1889 as we had to that of 1888, and have found it an *Index Medicus* of great value.

The first volume is devoted to diseases of the lungs, heart and kidneys, the alimentary canal, fevers and diphtheria. A great deal has been written recently on these subjects, and the faithfulness with which the various contributions have been collated and annotated is amply attested by the names of Loomis, Leidy, Cohen, Smith and Tyson, at whose hands the work has largely been done.

Volume II opens with an admirable discussion of the literature of the diseases of the brain, an interesting feature of which will be found in the comments by the editor, Dr. Seguin, on the legitimacy of the deductions set forth. Dr. Seguin has the faculty of culling the wheat from the chaff to an eminent degree, and gives the reader many collateral ideas that are well worth pondering over. Many cases are outlined bearing on the subject of cerebral localization, and numerous diagrams of the brain are given. Apparently faultless experiments of Schäfer and Brown are quoted as establishing in opposition to the views of Ferrier, that the angular gyri have nothing to do with vision, but that this sense is directly dependent upon the integrity of the cortex of the occipital lobes. The same investigators claim to have established that the centres for audition, smell and taste are not in the temporal lobes in monkeys whatever may be the case in other animals.

The diseases of the spinal cord are ably handled by Dr. Birdsall, and Dr. Hun notes that the subject of multiple neuritis has recently received much attention in all parts of the world. The disease is held to be a degenerative process affecting the peripheral nerves and is "entirely independent of any disease of the spinal cord." According to Leyden, who in 1880 first drew a clear clinical picture of this disease and establish it on a firm anatomical basis, there are five distinct forms as follows: "1, The infectious form; 2, The toxic form (lead, alcohol, arsenic, phosphorus); 3, The spontaneous form (rheumatism and over-exertion); 4, The atrophic form (dyscrasie and cachectic); 5, The sensible form (pseudotabes or nervotabes peripherica)." These various forms are elucidated by Dr. Hun, whose article is a valuable part of the volume.

Mental diseases have received a fair share of attention during the year, and the literature has been handled in a very satisfactory manner by Dr. Edward

N. Brush, of Philadelphia, formerly one of the editors of this JOURNAL. Dr. Andrews is quoted at length on the "Distribution and Care of the Insane in the United States." A considerable number of new remedies with their therapeutic effects on the insane are recorded. The subject of Hypnotism has claimed much attention, especially in France, and a great deal of contradictory evidence has been adduced as to the results. Little, if any, benefit however has thus far accrued to the insane from this source. Dr. Brush tries to clear up the confusion which has arisen from the misapprehension of the term paranoia. The word is loosely used by medical writers, and does not as yet convey any definite "meaning which is alone applicable to the class of cases for which it is used." The consensus of opinion seems to be that paranoia belongs to the so-called degenerative forms of insanity. "They" (paranoiacs) "have an inherent mental defect which may or may not show itself in any marked way until some obvious form of insanity becomes manifest. This usually takes the form of fixed delusions, frequently of persecution; with ideas of grandeur and importance. These cases consequently present little mental disturbance in other directions; memory and judgment as to ordinary matters disconnected with their delusions are fair, (hence the term monomania). They are usually intensely conceited, quarrelsome, restive under restraint, suspicious and liable to outbreaks of violence. It has been said, with considerable exaggeration, that a paranoiac will attempt homicide if he lives long enough. The termination of the condition is in dementia. The prognosis is always unfavorable." The volume concludes with an extended reference to the diseases of the uterus and its appendages.

In the third volume, the surgery of the brain is taken up and many remarkable cases are quoted and illustrated by diagrams where the surgery has correctly located the cerebral lesion and by timely operative interference saved the life of the patient. The discussion of this subject is of the highest importance for it is as yet a comparatively new field and one in which we believe the greatest achievements in the surgery of the future are likely to be made. The surgery of the abdomen, the genito-urinary tract and of the rectum and anus comes in for a liberal consideration replete with clinical data.

We find in volumes IV and V much to commend especially in the articles on diseases of the skin and ophthalmology, both of which are illustrated with excellent plates.

We trust the Annual has come to stay and shall look with pleasurable anticipation for its appearance during the current year. c. g. w.

Practical Electricity in Medicine and Surgery. By G. A. LIEBIG, Jr., Ph. D., and GEORGE H. ROHE, M. D. F. A. Davis, London and Philadelphia: 1890.

It is with some hesitation that we undertake to review the volume we have in hand for the reason that a somewhat unfavorable impression made on us early in our perusal of its pages has not been entirely dissipated by further and closer study. The book contains a great deal of excellent material handled in clear and vigorous English, but we question the propriety of devoting more than a third of a volume on "Practical electricity in medicine and surgery" to experimental electricity and magnetism, much of which is of an elementary character. Attractive as this subject is, we should prefer to find

it treated in a separate volume and in the domain of physics and chemistry where it properly belongs.

The volume is arranged in three parts, of which the first deals with electricity and magnetism and discusses at length various forms of electric and magnetic apparatus, batteries, storage cells and the construction of galvanometers. The electric motor, the telephone and phonograph also come in for a share of space though little if any reference is made to them apart from the details of mechanical construction and we therefore fail to see sufficient reason for their appearance in the book.

The second part elucidates the subject of electro physiology and electro diagnosis and deals with the effects of currents on the various tissues and organs of the body in health and dwells with special stress upon the manner in which these effects are modified by disease and may therefore be made use of as aids to diagnosis. Pflügers "law of contraction" is fully explained and the action of the brain, the spinal cord, the heart and various other organs of the body under electric stimulation, especially under galvanism, is concisely described and often illustrated with excellent woodcuts.

The third part discusses the application of electricity and magnetism to medical and surgical practice, and explains the methods by means of which these agents are made available for therapeutic purposes generally and gives special attention to the application of electricity in gynaecology, the diseases of the genito-urinary organs and in diseases of the skin. It is pointed out that the well known fact that electric currents of different kinds modify nutrition in a remarkable manner has led to a great variety of therapeutic procedure and perhaps nowhere with greater success than in the treatment of uterine tumors. A strong current, (50 to 250 milliampères) passed through the tumor often causes "arrest of hæmorrhage, cessation of pain and diminution in the size of the tumor." The treatment of urethral stricture by electrolysis is advocated but it is admitted the "cases occur in which urethrotomy is a quicker, safer, easier and more effectual method of cure."

C. G. W.

The Neuroses of the Genito-Urinary System in the Male with Sterility and Impotence.

By DR. ULTMANN, Professor of Genito-Urinary Diseases in the University of Vienna. Translated by GARDNER W. ALLEN, M. D. F. A. Davis, Philadelphia.

This handy little volume of 160 pages, published in the "Student's and Physician's Ready Reference Series," consists of a translation and re-arrangement of two excellent papers recently published by Dr. Ultmann, in the German language, on certain neuroses of the genito-urinary system in the male. Dr. Ultmann has had large clinical experience and his observations appear to be based upon sound pathological principles.

The neuroses of the male urinary and sexual system are forms of disease that sometimes arise from disturbances of nutrition resulting from chronic, brain and spinal affections, but a much larger contingent of these nervous cases "is furnished by those manifestations of disease which have their origin in local changes in the urinary system and which consequently are to be looked upon as reflex neuroses." In this connection there appears to be no more prolific etiological factor than the gonorrhœal process.

In the treatment of children suffering from nocturnal incontinence of urine

Dr. Ultzmann has found nothing so satisfactory as electricity, and the safest and most trustworthy method of using this agency is the "indirect stimulation of the sphincter vesicæ through the rectum." The sittings usually last from five to ten minutes and are held daily or at least every other day for a period of a month or more if necessary. Excellent results also have been obtained in the treatment of impotence due to non-activity of the secretory organs, by direct faradization of these organs. Unless actual atrophy of the testicles has occurred, spermatozoa are often formed in large numbers under the influence of the induced current. That peculiarly distressing, although usually temporary neuroses, namely, impotence of psychical origin, is discussed in the manual in an interesting and suggestive manner. C. G. W.

Spinal Concussion: Surgically Considered as a Cause of Spinal Injury, and Neurologically Restricted to a Certain Symptom Group, for which is Suggested the Designation Erichsen's Disease, as one form of the Traumatic Neuroses. By S. V. CLEVENGER, M. D. Illustrated. Philadelphia and London: F. A. Davis, 1889.

In this comprehensive work Dr. Clevenger carefully reviews the scattered literature of the subject, describes the modern methods of diagnosis, discusses the controversy concerning hysteria and presents his own views in reference to the anatomical derangements that best explain the symptoms. The principal treatises quoted and reviewed are: The classical work of Erichsen on Spinal Concussion; Page's *Injuries of the Spine and Spinal Cord*; Oppenheim's *Traumatic Neuroses*, (quoted entire); Erb's article in Ziemssen's *Cyclopædia*; articles by Westphal on epilepsy and mental conditions induced traumatically; Charcot on "traumatic hysteria;" and various articles by Leyden, Byrom Bramwell, Spitzka, Knapp, Dana and many others.

An interesting and valuable chapter containing accounts of twenty original and thirty-four authenticated cases illustrative of spinal disease is followed by a chapter devoted to traumatic insanity in which special reference is made to the mental alterations peculiar to cases of spinal concussion. The author's anatomical descriptions are intended to throw light on symptoms and the latter are set forth with painstaking minuteness. The general practitioner will find in the work many useful hints in the modern methods of diagnosis of neuroses aside from the diagnosis of spinal concussion. Pathologically, the author claims the original view that the lesion of spinal concussion is to be found mainly in the spinal sympathetic nervous system, and that the cord functions are deranged as a consequence. The chapter especially devoted to medico-legal considerations is short and unsatisfactory. On the whole, however, the work appears to be the result of considerable study and experience and will be found useful by the lawyer as well as the physician as a handy book of reference. C. E. A.

Insanity in Australian Aborigines, with a Brief Analysis of Thirty-Two Cases, and a Case of Sporadic Cretinism. By Dr. F. NORTON MANNING, Inspector General of the Insane in New South Wales.

Under this heading Dr. F. Norton Manning gives some interesting facts regarding insanity among the aborigines of Australia. Insanity was a very rare affection among them when in their primitive and uncivilized condition,

although they seem to have anticipated the modern legal teachings regarding the homicidal insane, and promptly put to death the violent and aggressive. The melancholic were allowed, if so disposed, to commit suicide, the harmless were permitted to live, and in some cases were held in reverence as superior and inspired beings. Hereditary insanity was rare owing to marriage laws which forbade consanguineous, intertribal or interseptal marriages. A rapid increase in the number of cases of insanity has been observed since the natives have learned the vices that accompany civilization, and the so-called civilized aborigines show a greater tendency to insanity than the other members of a tribe. This point is well illustrated by statistics. The prevailing type of insanity is mania, and "dementia, with filthy and degraded habits," is soon developed. One case of puerperal insanity is reported, and the absence of general paresis remarked. The average duration of life in hospital is much shorter than with Europeans, and phthisis and marasmus are the most common causes of death.

Dr. F. Norton Manning reports a very interesting case of Sporadic Cretinism, and in a thoughtful paper refers to the points of resemblance in cases of myxœdema and cretinism. He believes with Dr. Ord "that a general review of the symptoms and pathology leads to the belief that the disease described under the name of myxœdema, as observed in adults, is practically the same disease as sporadic cretinism when affecting children, and that a very close affinity exists between myxœdema and endemic cretinism."

C. K. C.

Ichthyosis Linearis Neuropathica. By FREDERICK PETERSON, M. D. Reprinted from the *Journal of Cutaneous and Genito-Urinary Diseases* for February, 1890. Illustrated.

Ichthyosis Linearis Neuropathica is the name suggested by Dr. August Koren, of Christiana, Norway, for a trophoneurotic form of ichthyosis described by him in the *Norsk Magazin for Lægevidenskaben* of September, 1889. Ichthyosis, as is well known, is, as a rule, a diffuse disease; but a noteworthy case of Dr. Koren's presented an "*ichthyosis cornea* developed exquisitely in the form of brownish papillomatous stripes along the median, ulnar and radial nerves of the right arm, with normal skin lying between them." The appearance was similar to that of *nævus nervosus*, but the fact that it underwent change and some improvement with age, and the strongly developed epidermal layer, which felt like a grater under the hand, are points which served to distinguish it from *nævi nervosi*, and furthermore from *nævi vermosi*. Dr. Peterson states that whatever may be the underlying cause of the diffuse variety of ichthyosis there can be no doubt that the local linear forms are in reality due to a trophoneurosis. He quotes Leloir as having found pathological changes in the cutaneous nerves—in one case an atrophic degenerative neuritis—and also as having seen the disease follow various nervous affections, such as severe cases of sciatica, paraplegias, grave hysterical paralyses, Pott's disease, and lead intoxication. Another form of trophoneurotic ichthyosis which has as yet received no name, Dr. Koren suggests the designation of *ichthyosis circumscripta neuropathica*.

Dr. Peterson concludes his paper by saying that in an examination of cutaneous literature he found nothing exactly like Dr. Koren's case, although there

are references to neuropathic nævi and excrescence. It is probable, he thinks, that if such a case were presented to the New York Dermatological Society, it would be considered a neuropathic papilloma; and "further observation and study will be necessary before it can be determined whether Dr. Koren has really added a new form of ichthyosis to those already known, or has merely described a case of papilloma neuropathicum presenting some unusual features."

C. E. A.

Clinical Memorandum. By THEODORE DILLER, M. D., State Hospital for the Insane, Danville, Pa. *Medical News*, February, 1890.

The author describes a case in which diagnosis could not be made, and, at the autopsy, finds an unusual condition. The patient, a female, had been insane for fifteen years, and was a chronic maniac, who had done laundry work in the hospital. She began losing energy for work, and in two months became seriously ill; suffering with vomiting, diarrhoea and great enfeeblement.

The symptoms, while indicative of intestinal trouble, were not sufficient to account for her condition, and she died four days later without a diagnosis having been made. The autopsy showed a low grade of inflammation which may have been a diphtheritic dysentery, but which the author thinks "possibly was caused by an embolus or thrombus, which cut off the nutrition of this part of the bowel." This inflammation was probably the cause of death, and, even if it were a dysentery, it is rarely found out of an epidemic and is not to be readily recognized.

A more interesting part of the autopsy was the discovery of a diverticulum proceeding from the ileum about two feet above the ileo-cæcal valve. It was about four inches in length, large enough to admit the finger and filled with fecal material. The gut was somewhat constricted immediately above and below, but alternate dilatations and constrictions were common throughout the whole intestine. This anomaly was probably congenital, and had nothing to do with cause of death. If it had, diagnosis without explorative incision would have been impossible.

The author remarks that he has found this irregular lumen in the intestines of a large number of insane; and it is the experience of most physicians in charge of chronic cases in asylums, homes, alms-houses, etc., to find the same. His opinion that the condition is brought about by habitual constipation, is feasible.

R. R. D.

The International Medical Annual and Practitioner's Index for 1890. Edited by P. W. WILLIAMS, M. D., Secretary of Staff, assisted by a corps of thirty-six collaborators, European and American Specialists in their several Departments. Six hundred octavo pages. Illustrated. E. B. Treat, Publisher, 5 Cooper Union, New York.

This book is a résumé of the year's progress in medicine and will be a comprehensive source of information to the busy practitioner. The first part treats of new remedies, progress in therapeutics and thermo- and electro-therapeutics. The new hypnotics are briefly noted. Both papers on thermo-therapeutics and electro-therapeutics are very complete. The former has

several cuts illustrating different forms of baths and latest bathing appliances. The latter (electro-therapeutics) have been very carefully treated by Dr. A. D. Rockwell. In his paper we find several interesting abstracts from articles written by prominent specialists on electricity as applied to diseases of the nervous system.

More than two-thirds of the book comprises the second part, which is devoted to the consideration of new treatment in medicine and surgery. We read with interest the article of W. H. Elam, F. R. C. S., on the surgery of the brain and cerebro-spinal system. It fully and concisely represents the recent advancement made in this field. The cases recorded add emphasis to the importance of surgical procedure in cerebral traumatism, abscesses and tumors. Dr. Weatherly, in considering Insanity, gives particular importance to the English Lunacy Acts Amendment Bill. This subject will commend itself to all asylum physicians, and especially to those of England. The bill contains many excellent features, as well as some curious anomalies. Indeed, Dr. Needham says that to him the one idea of its framers seems to have been, that in the diagnosis of morbid states of the mind, the non-medical class had in its ignorance a better claim to public confidence than those who devoted the trained intelligence of their lives to the discrimination of such diseased conditions. It is evident that lawyers, not physicians, have been instrumental in originating the bill. The other articles on this subject refer to, The Turkish Bath in Insanity, Massage, New Remedies and Hypnotism. Before leaving the second part we must call the reader's attention to the contributions of Dr. Dana.

Sanitary Science and Life Assurance, subjects of great value, occupy the third part of the book. Owing to increasing circulation the publishers have been able to make improvements in their department. The size of the page is enlarged, the binding more substantial, and the illustrations more numerous. These features can only commend the book to its readers. W. M.

The Insanity of Doubt. By PHILIP COOMBS KNAFF, A. M., M. D., Clinical Instructor in Diseases of the Nervous System, Harvard Medical School. *American Journal of Psychology*, January, 1890.

The article begins with a definition of the Insanity of Doubt, stating that it is a form of mental disturbance manifested in fixed ideas or imperative conceptions. Imperative conceptions in health are illustrated by the persistence of a tune or rhyme in consciousness after it has passed from the senses, and by the impulses people have to jump from high places, etc. The transition from these fleeting ideas to dominant persistent, imperative conceptions is remarked. The dividing line is distinct in that in the healthy person, these ideas are not dominant.

In order to discuss the pathogenesis of these conceptions, the author gives a definition of consciousness, which, while it does not define, gives a sufficiently clear description to enable him to found his theory. Consciousness is "the sum of present sensations, including representative and re-representative sensations." That is, the paramount association of cerebral cells, combined with collateral associations in the same line, result in a state of consciousness which has the quality of that association which is paramount for the time being.

In the healthy brain, the association may be changed at will with such few exceptions as carrying a tune, or a combination of cards to bed after an evening's pleasure.

In the unhealthy brain, some association or groups of associations, of cells, become paramount and remain so, in spite of all inhibitory efforts of the will or of new presentations.

The result is a "fixed idea," or imperative conception or conceptions that dominate the whole life of the individual; and into which all new presentations are brought into some relation, no matter how distorted.

Running beneath all this, there is, in the early stages, the inexplicable mental state of being conscious of this domination and of the individual's inability to stop it.

The clinical history has three stages:

First stage—"This period as is ordinarily distinguished by the spontaneous, involuntary and irresistible productions of some series of thoughts upon indeterminate, theoretical, and sometimes ridiculous subjects without any illusions or hallucinations."

Second stage—"The patient begins to reveal his distress to his friends, to give prolix recitals of his doubts, and to require constant reassurance."

Mysophobia may appear in this stage, although it is not indicative of "a more hopeless condition than a patient who simply questions."

Third stage—Finally, "They are a prey to continual agitation, they do not read or write, and pass the greater part of their time in the midst of timorous irresolution and vague apprehensions, which keep them in a state of almost complete inertia."

This form of insanity, like all others, manifests itself in the mal-adjustment of organic to environmental relations. The author calls attention to the fact that while in these cases the want of adjustment is perceived, it is not realized, apprehended, not comprehended; that the victim must compare and re-compare, and that although he seeks adjustment he is never sure of it.

Insanity of doubt, according to the author, who agrees with Spitzka, is a curable disease; and when there is no decided neuropathic heredity, its course is from three to six months. It is true it may run into paranoia, which it resembles in many respects. The difference is, that in insanity of doubt, the imperative conception comes primarily from a normal conception that became persistent, and which is accompanied with incessant speculation. In paranoia the mental state is descended from a normal sensory error, through hallucinations perceived as such, to a primary delusion that requires or permits of no speculation whatever.

R. R. D.

A Case of Large Cerebellar and Several Smaller Cerebral Hemorrhages. By THEODORE DILLER, M. D., Assistant Physician, State Hospital for Insane, Danville, Pa.

Dr. Diller presents the history of another interesting case in which there was intra-cranial hemorrhage. The patient had been insane for about two years, during which she had had several attacks of apoplexy and hysterical convulsions. After death a large hemorrhage was discovered in the left cerebellum, that must have altogether interfered with its functions. Old hemorrhages also appeared in the motor tracts of both sides of the cerebrum. The immediate cause of death was the recent cerebellar hemorrhage which

communicated with the sub-dural space, and which pressed upon the floor of the fourth ventricle.

During life, there had been a variety of symptoms of severe organic trouble, but nothing specific had been diagnosed. Ataxia and aphonia had appeared and disappeared repeatedly. The author thinks his case will support Brown-Séquard's theory that there are supplemental centres for all brain centres, and that when one is injured, the other will gradually assume its functions.

R. R. D.

Methods of Examination in Medico-Legal Cases, Involving Suits for Damages for real or supposed Injuries to the Spinal Cord. By PHILIP COOMBS KNAPP, A. M., M. D., Clinical Instructor in Diseases of the Nervous System, Harvard Medical School, etc., etc.

In this article, there is set forth a classification of injuries of the nervous system which may result from railroad accidents, etc., which, in turn are followed by suits for damages involving medical expert testimony. All the traumatic neuroses, likely to occur, are briefly discussed, and their diagnoses and positive symptoms tersely outlined.

Attention is called to cases in which damages have been granted after a suit, and in which perfect recovery has ultimately occurred. These cases are really not simulators, for they have been wrought into such a nervous condition by the advice of friends and lawyers, the troubles of the suit, and the expectation of remuneration, that they appear, even to experts, much worse than they really are. The histories of these cases and those of real feigners, opposed to the feeling which so many people have against large corporations, have led to a considerable bitterness of feeling between corporations and the people which certainly does not render the physician's work any easier.

The value of the article lies in the fact that it clearly outlines the majority of traumatic neuroses, and gives symptoms in each that may not be simulated, besides suggesting tests for such of those as may be simulated, that are practical and readily within reach of the general practitioner. In conclusion, the author gives it as his belief, that most of these cases are not fraudulent, even if public sentiment does class them so. He would endeavor, after presenting these various cases, to remove from our minds all prejudice, and to assist in making a surely scientific diagnosis.

R. R. D.

LETTER FROM FRANCE.

THE CONGRESSES HELD IN PARIS IN 1889. QUESTIONS RELATING TO MENTAL MEDICINE.

The scientific movement of mental medicine in France centered itself almost entirely, during the past six months, in the various congresses which were held in Paris in August and September on the occasion of the Universal Exposition. I should have preferred to speak earlier of these congresses to the readers of the *AMERICAN JOURNAL OF INSANITY*, but have been prevented much to my regret, by various circumstances. Nevertheless, I hope that it is not too late, seeing that what relates to science is not matter of merely present interest.

Although among these congresses that of mental medicine is the one whose output is in the aggregate of the greatest importance to ourselves, it is precisely the only one of which I shall have nothing to say. My reason for this is that Dr. Ritti, secretary-general of the Congress, will in the near future send you a complete report of its proceedings, so that my remarks would only be supererogatory.

I will confine myself to the statement that the Congress was well attended and did good work. Among other things, it was occupied with a scheme of international classification of mental diseases, a subject which had previously been discussed at the Brussels Congress. It adopted a scheme submitted by Dr. Morel of Ghent; but it may be well to call attention to the fact that the word *statistics* was substituted for the word *classification*. Indeed it was held to be absolutely impossible in the actual state of Science to make an unimpeachable classification that would be likely to commend itself to all alienists. Some took exception to the word *classification*, on the ground that it seemed to prejudice questions whose solution was still pending. The word *statistics*, on the other hand, is acceptable to all and, in point of fact, the object sought by the Brussels Congress, namely, to furnish alienists the world over the means of comparing the data of clinical research and thus facilitate the progress of Science, is not the less accomplished by its adoption.

The Congress on Alcoholism proposed in its programme the study of "the legal means calculated to prevent the evils caused

by alcoholism." Jurists like MM. Duverger, Fournier de Flot, and Petithan found themselves in accord with the medical profession, as represented by Dr. Motet, in recognizing the necessity for doing something in the matter. As regards habitual drunkards affected with insanity, the best treatment was thought to be confinement in a special asylum. For those who may not yet have shown signs of mental derangement it was proposed to inflict some such punishment as deprivation of their civil rights, in the hope that such repression might exercise a wholesome moral influence. In conformity with these views, the Congress passed the following resolutions:

1. The presence in society of individuals in a state of simple drunkenness, of pathological drunkenness, or of chronic alcoholism, being a source of danger to the individual, to his family and to society, the Congress expresses the wish that judicial measures be taken to authorize the official confinement and due treatment of such individuals in special institutions. Their discharge shall be deferred so long as there may be danger of relapse and such discharge shall be authorized only with the sanction of the physician in charge. The treatment shall be repressive in character and the patient shall be subject to compulsory labor.

2. The chronic drunkard who has lost his free will in whole or in part, may be deprived by the Attorney-General, in whole or in part, of his civil and political rights and placed in a special establishment.

At the Congress of Public Charities, the subject of the hospitalization and protection of imbecile and idiot children was discussed. Dr. Bourneville demanded a radical reform for France on the lines of procedure followed by the United States, England and other countries. As it is, children of this class are left almost everywhere in a state of moral abandonment. They are admitted to hospitals for the insane where they are out of place and where their presence is highly inconvenient. And yet, a goodly number of them are susceptible of education within certain limits. They are capable of learning a trade and of thus making themselves useful; some of them indeed learn to read and write. Dr. Bourneville demanded therefore, and the Congress sustained him in his position, that special asylums for the treatment and education of idiot, imbecile and epileptic children, that is of the most important group of abnormal children, should be built. Dr. Bourneville cited as example, and he was justified in so doing, the Bicêtre organization. In that hospital in fact, in the service of which he

has charge, everything that pertains to the material and educational welfare of defective children has been improved, under his direction, in a way to command the highest admiration.

There was a Congress of Experimental and Therapeutic Hypnotism, the first of its kind and which has been looked forward to, in view of the zeal with which hypnotism has been studied of late years. But this zeal begins to wane because the practical advantages of hypnotism are outweighed by its drawbacks. One of the most serious of these latter is beyond question the public *séances* of hypnotism. Dr. Ladame pointed out to the Congress the dangers presented by hypnotism when practiced promiscuously and especially before a public among which persons predisposed to nervous diseases are necessarily present. Public exhibitions have been the starting point of veritable epidemics and nervous accidents determined by a sort of contagion. Various neuroses and even attacks of insanity have thus been produced. Moreover, it must be borne in mind that the public practice of hypnotism is a means of instructing criminals in methods of procedure that may enable them to commit assaults, crimes, etc. Thus, hypnotized women have been victims of attempts at rape. The Congress was of the opinion, in accordance with the views of Dr. Ladame, that these different dangers demand the attention of the proper authorities and passed the following resolutions:

1. Public exhibitions of hypnotism and magnetism should be prohibited by the proper authorities in the name of public hygiene and the sanitary police.
2. The practice of hypnotism and magnetism as means of cure should be subject to the same laws and regulations which govern the practice of medicine.

Some members of the Congress would fain have added a third resolution, requiring that thenceforward hypnotism should be made an obligatory department of medical instruction and that the students should familiarize themselves with its practical application but the majority declined, very properly, to vote thus, some taking the ground that the professors are free to take as subject matter of their instruction anything whatsoever that has a bearing upon medical science, others holding that hypnotism from a medical point of view, has not yet given any certain guarantee of great utility.

This application of hypnotism, and especially of suggestion, to the treatment of disease could not fail of discussion by the Congress. Dr. A. Voisin stated the results of his experience as

by alcoholism." Jurists like MM. Duverger, Fournier de Flot, and Petithan found themselves in accord with the medical profession, as represented by Dr. Motet, in recognizing the necessity for doing something in the matter. As regards habitual drunkards affected with insanity, the best treatment was thought to be confinement in a special asylum. For those who may not yet have shown signs of mental derangement it was proposed to inflict some such punishment as deprivation of their civil rights, in the hope that such repression might exercise a wholesome moral influence. In conformity with these views, the Congress passed the following resolutions:

1. The presence in society of individuals in a state of simple drunkenness, of pathological drunkenness, or of chronic alcoholism, being a source of danger to the individual, to his family and to society, the Congress expresses the wish that judicial measures be taken to authorize the official confinement and due treatment of such individuals in special institutions. Their discharge shall be deferred so long as there may be danger of relapse and such discharge shall be authorized only with the sanction of the physician in charge. The treatment shall be repressive in character and the patient shall be subject to compulsory labor.

2. The chronic drunkard who has lost his free will in whole or in part, may be deprived by the Attorney-General, in whole or in part, of his civil and political rights and placed in a special establishment.

At the Congress of Public Charities, the subject of the hospitalization and protection of imbecile and idiot children was discussed. Dr. Bourneville demanded a radical reform for France on the lines of procedure followed by the United States, England and other countries. As it is, children of this class are left almost everywhere in a state of moral abandonment. They are admitted to hospitals for the insane where they are out of place and where their presence is highly inconvenient. And yet, a goodly number of them are susceptible of education within certain limits. They are capable of learning a trade and of thus making themselves useful; some of them indeed learn to read and write. Dr. Bourneville demanded therefore, and the Congress sustained him in his position, that special asylums for the treatment and education of idiot, imbecile and epileptic children, that is of the most important group of abnormal children, should be built. Dr. Bourneville cited as example, and he was justified in so doing, the Bicêtre organization. In that hospital in fact, in the service of which he

has charge, everything that pertains to the material and educational welfare of defective children has been improved, under his direction, in a way to command the highest admiration.

There was a Congress of Experimental and Therapeutic Hypnotism, the first of its kind and which has been looked forward to, in view of the zeal with which hypnotism has been studied of late years. But this zeal begins to wane because the practical advantages of hypnotism are outweighed by its drawbacks. One of the most serious of these latter is beyond question the public *séances* of hypnotism. Dr. Ladame pointed out to the Congress the dangers presented by hypnotism when practiced promiscuously and especially before a public among which persons predisposed to nervous diseases are necessarily present. Public exhibitions have been the starting point of veritable epidemics and nervous accidents determined by a sort of contagion. Various neuroses and even attacks of insanity have thus been produced. Moreover, it must be borne in mind that the public practice of hypnotism is a means of instructing criminals in methods of procedure that may enable them to commit assaults, crimes, etc. Thus, hypnotized women have been victims of attempts at rape. The Congress was of the opinion, in accordance with the views of Dr. Ladame, that these different dangers demand the attention of the proper authorities and passed the following resolutions:

1. Public exhibitions of hypnotism and magnetism should be prohibited by the proper authorities in the name of public hygiene and the sanitary police.

2. The practice of hypnotism and magnetism as means of cure should be subject to the same laws and regulations which govern the practice of medicine.

Some members of the Congress would fain have added a third resolution, requiring that thenceforward hypnotism should be made an obligatory department of medical instruction and that the students should familiarize themselves with its practical application but the majority declined, very properly, to vote thus, some taking the ground that the professors are free to take as subject matter of their instruction anything whatsoever that has a bearing upon medical science, others holding that hypnotism from a medical point of view, has not yet given any certain guarantee of great utility.

This application of hypnotism, and especially of suggestion, to the treatment of disease could not fail of discussion by the Congress. Dr. A. Voisin stated the results of his experience as

regards mental diseases, the neuroses and intellectual defects. He admitted that only a small number of the insane are susceptible to hypnotism and that barely ten per cent lend themselves to its practical application. Often with these latter much time and patience are necessary to arrive at any result and it is necessary to repeat the experiments ten or twenty times. Finally, even when the subject has appeared to be accessible to the effects of suggestion, one has to reckon with relapses. In brief, then, hypnotism is difficult of application and an untrustworthy means of treatment.

The Congress of Criminal Anthropology discussed the grave question of criminality looked at from the point of view of anthropology. Does such a thing as a criminal type of man exist? Dr. Lombroso proclaimed anew at the Congress of Paris the doctrine he had already announced the previous year at the Congress of Turin and which has been expounded by the disciples of the school of which he is the principal representative. So far as he is concerned, the question admits of no doubt. He maintains that criminals present generally an aggregate of characteristics which are significant, notably the following: a symmetry of face, width of the orbits, prominence of the zygomatic arches, projection forwards of the lower jaw. Several members of the Congress advanced against these views of Dr. Lombroso the objections that had already been made and maintained with great energy that there was really in the characteristics indicated nothing that was peculiar to criminals. Dr. Manouvrier took particular exception to Dr. Lombroso's views in this latter respect and supported his position by anatomical researches, as the result of which it appeared to him that certain criminals present none of these special characteristics and that, on the other hand, these so-called significant characteristics may be met with among individuals who are by no means criminals. Dr. Benedick, insisting on this latter particularity, said that it might be met with among epileptics, as well as among various kinds of insane persons. Finally, Dr. Lacassagne, holding also that these anatomical signs had but a relative value, was of the opinion that it is more important to consider, relatively to the development of criminality, the social environment of the individual. His condition, education, good or ill fortune exercise upon him and upon his destiny a real and preponderating influence. Thus, the criminal is especially found among the poor and miserable and unfortunate. From this discussion, it follows that the theory of the "born criminal" has

need of support upon more convincing proofs before it can gain acceptance. Following Dr. Lombroso, two other Italian physicians communicated researches made in the line of his doctrine. One of these, Dr. Frigerio, showed that acuteness of vision is much more developed among criminals than among other persons whom he had examined. On the other hand, the senses of smell and taste were less developed among criminals than among normal individuals. The other observer, Dr. Ottolenghi, showed that the sense of hearing is among criminals the sense of all others which attains the highest perfection.

One of the questions submitted to the Congress of Legal Medicine treated of cerebral and spinal traumatisms in their relations to legal medicine. These traumatisms, the effects of which are designated under the name "railway spine" and "railway brain," because they are most frequently induced by railway accidents, have only remote relations with mental diseases. They concern rather the production of nervous phenomena which some observers classify nowadays under hysteria. But the debate to which they gave rise before the Congress led precisely to the discussion of these relations which it is of interest to note.

Dr. Motet remarked that it was necessary to establish a distinction between light and grave cases. The first might be attributed to hysteria and the latter resemble much more the major forms of cerebral disease and in particular general paralysis. Dr. Garnier took the same ground and remarked that the greater number of these grave cases have found their way into hospitals for the insane; that the mental state was not one of hysteria, but that the persons affected should be classified in the category of patients to which Lasègue had given the name *les cérébraux*. Finally, Dr. Christian called attention to the long interval which elapses sometimes between the traumatism and the appearance of the cerebral trouble. There is at first, said he, a period of calm more or less prolonged, then, after a lapse of two or three years, the patients enter hospitals for the insane. Thus, it is very difficult in such a case to ignore as a factor in causation the old traumatism, whatever may be the form of mental trouble which the affected persons present. As the result of this discussion, and by way of practical conclusion, the Congress was of the opinion that whenever a physician is consulted as to the possible consequences of a traumatism, he should exercise the utmost reserve in his prognosis and prejudge nothing as regards the future and not anticipate the termination in any respect.

Incidentally, the Congress discussed the creation of special prisons which, following the term employed by Dr. Semal, might be called prison-asylums, destined to the reception of certain patients who had committed crimes or assaults. In France, a great number of alienists advocate the creation of such an asylum, but the public authorities do not seem at all disposed to satisfy their demands. Dr. Semal called attention to the inconvenience involved in leaving such patients among the ordinary insane, especially when they suffer from alcoholic or impulsive insanity.

The Congress of which I have made mention also discussed many other questions, all equally important, but this is not the place to speak of them because they have no special relation to mental medicine.

VICTOR PARANT.

Toulouse, 26th of December, 1889.

NOTES AND COMMENTS.

DAVID YELLOWLEES, M. D., LL. D.—Dr. Yellowlees, whose picture we give in this number, was born in 1835, in Stirling, Scotland, a town full of the historic memories of a by-gone time. His father and brother have both been provosts of Stirling, holding also important positions in its commercial life. He was educated at the University of Edinburgh, and studied also in Paris after his graduation. He took a first place in his classes, and was a marked man and a favorite at college. He had the good fortune, after returning from Paris, to be chosen as resident physician to Prof. Gairdner, and then resident surgeon to Prof. Spence, in the Royal Infirmary of Edinburgh, positions greatly coveted by all the best men. He was thus well grounded in general medicine and surgery. He was next appointed one of the assistant physicians at the Royal Edinburgh Asylum, Morningside, under Dr. Skae. Soon a very tempting opening in private practice occurred in Yorkshire, and he went there for over a year. But his love for the mental department pursued him and brought him back to Morningside. No doubt, however, this experience helped to prevent the narrowing effect of a specialty, and to develop the all-roundness which he shows. In 1863 he was appointed to the medical charge of the new asylum then being built for Glamorgan, Wales. He organized and superintended that institution so successfully that it soon came to be considered one of the model county asylums of Great Britain. In architectural conception that asylum consisted of a series of district-houses, the gables of one joining the middle of the sides of the two next it. Nothing was thus sacrificed to corridors or passages of communication with the central administration portions, the patients from the outermost houses having to go through the more central in going to meals in bad weather, when they could not go outside. Dr. Yellowlees, like all enthusiastic and adaptable minded men, worked out the architectural idea of his building with his management, getting more and more enamoured of its good points, and refusing to attach much importance to its drawbacks. Certainly the Glamorgan asylum was the picture of domestic comfort. In 1875 he received the important appointment of physician-superintendent of the Glasgow Royal Asylum, Gartnavel, in succession to Dr. Macintosh, which he now holds. That institution has prospered exceedingly, in medical and

Incidentally, the Congress discussed the creation of special prisons which, following the term employed by Dr. Semal, might be called prison-asylums, destined to the reception of certain patients who had committed crimes or assaults. In France, a great number of alienists advocate the creation of such an asylum, but the public authorities do not seem at all disposed to satisfy their demands. Dr. Semal called attention to the inconvenience involved in leaving such patients among the ordinary insane, especially when they suffer from alcoholic or impulsive insanity.

The Congress of which I have made mention also discussed many other questions, all equally important, but this is not the place to speak of them because they have no special relation to mental medicine.

VICTOR PARANT.

Toulouse, 26th of December, 1889.

NOTES AND COMMENTS.

DAVID YELLOWLEES, M. D., LL. D.—Dr. Yellowlees, whose picture we give in this number, was born in 1835, in Stirling, Scotland, a town full of the historic memories of a by-gone time. His father and brother have both been provosts of Stirling, holding also important positions in its commercial life. He was educated at the University of Edinburgh, and studied also in Paris after his graduation. He took a first place in his classes, and was a marked man and a favorite at college. He had the good fortune, after returning from Paris, to be chosen as resident physician to Prof. Gairdner, and then resident surgeon to Prof. Spence, in the Royal Infirmary of Edinburgh, positions greatly coveted by all the best men. He was thus well grounded in general medicine and surgery. He was next appointed one of the assistant physicians at the Royal Edinburgh Asylum, Morningside, under Dr. Skae. Soon a very tempting opening in private practice occurred in Yorkshire, and he went there for over a year. But his love for the mental department pursued him and brought him back to Morningside. No doubt, however, this experience helped to prevent the narrowing effect of a specialty, and to develop the all-roundness which he shows. In 1863 he was appointed to the medical charge of the new asylum then being built for Glamorgan, Wales. He organized and superintended that institution so successfully that it soon came to be considered one of the model county asylums of Great Britain. In architectural conception that asylum consisted of a series of district-houses, the gables of one joining the middle of the sides of the two next it. Nothing was thus sacrificed to corridors or passages of communication with the central administration portions, the patients from the outermost houses having to go through the more central in going to meals in bad weather, when they could not go outside. Dr. Yellowlees, like all enthusiastic and adaptable minded men, worked out the architectural idea of his building with his management, getting more and more enamoured of its good points, and refusing to attach much importance to its drawbacks. Certainly the Glamorgan asylum was the picture of domestic comfort. In 1875 he received the important appointment of physician-superintendent of the Glasgow Royal Asylum, Gartnavel, in succession to Dr. Macintosh, which he now holds. That institution has prospered exceedingly, in medical and

in general reputation, under his charge. It is, architecturally, perhaps the finest asylum in Great Britain, and in its internal arrangements and aspects gives the feeling of a grand and spacious roominess. Financially its position is most enviable, for it now has a very large accumulated fund, the result of Dr. Yellowlees' prudent management.

To know Dr. Yellowlees you must see him. Above most men his individuality is marked. Social and personal magnetism, an infective presence, an inexhaustible fountain of joyousness, are all combined in him. He carries you by storm at your first meeting. A melancholic patient must be depressed indeed who can resist his sympathetic high spirits. He makes a marked impression on all who see him. He is a born orator, and when he gets on his legs to make a speech, he easily eclipses all competitors. His words flow easily and always pointedly. He has the "art of persuasion" to perfection. Hence he gets all his own way with his boards of directors. Socially he is irresistible. Many a young English and American physician, who "dined with the staff" at Morningside in old times, when Skae was at the head of the table, supported by Sibbald, now a Scotch Commissioner in Lunacy, Young, now professor of Natural History in Glasgow University, Clouston, now sitting in Skae's chair, and Yellowlees, used to have their ideas much changed as to the way in which Scotchmen enjoyed themselves socially. Skae's humorous Scotch stories and Yellowlees' boisterous fun and "chaff" were undoubtedly the great features of those *noctes psychologice*, that live so vividly in the memories of some who were there. Alas! that time will speed so fast! Most of them are now on the "downward slope," but Yellowlees is little changed in his infective laughter or in his aggressive fun. He sets age and time at defiance.

But any pen and ink picture of Dr. Yellowlees that only showed his social side, would be very incomplete. He has much of the shrewd conservatism of his native land in him. He is a capital business man; he can command men and can administer affairs. His indignation is as overpowering as his fun when occasion calls it forth, and there is a deep religiousness in him which colors his whole life and conduct. On a stormy Sunday, when the chaplain did not turn up at Morningside on one occasion, he preached one of the best sermons ever heard there, at five minutes' notice.

Dr. Yellowlees has made several important contributions to medical literature. But those who know his literary faculty best consider that he has written far too little to have done justice to

himself or to his great experience. He is lecturer on Mental Diseases in the University of Glasgow, which conferred on him the degree of LL. D. in 1888. He is the president-elect of the Medico-Psychological Association of Great Britain and Ireland, which is to meet in Glasgow in 1890, under his genial chairmanship.

THE HOSPITALIZATION OF ASYLUMS.—The Seventy-Second Annual Report of the Superintendent of the McLean Asylum for the Insane to the Trustees of the Massachusetts General Hospital for the year 1889, is one of great interest and of remarkable significance as indicating the rapid advance going on in all departments of mental medicine.

For nine years past the law of Massachusetts has allowed voluntary applications for admission, which though few at first, have now reached the proportion of about one-third of all the admissions, the number for the past year being forty-two. These patients can demand their discharge on three days' written notice or request. In some cases they have to be committed in the regular way, after such discharge, but the number of such instances has gradually diminished. Dr. Cowles sets forth the advantages of this plan in a very clear and convincing light. The practice may not be incapable of abuse, but the report or analysis of each case required to be forwarded to the board ought to be a pretty good safeguard.

There can be little doubt that this arrangement gives emphasis to the hospital character of the institution, and strengthens the *morale* of the patients, if not allowed to create too much of a class distinction among them. It speaks well for the management, that the very natural obstacles encountered at first have been so far overcome, that voluntary patients are becoming content to "remain sufficiently long."

One of the most valuable features of this report is Dr. Cowles' appendix in relation to the training school for nurses, established some years ago. The first seven years of its existence show as results: Graduates, 54 women, 10 men; remaining in service in the asylum, 14 women, 5 men; pupils still under training, 30 women, 24 men. To give a correct idea of the details of this system, and its remarkable advantages, which add to the results of scientific knowledge those moral benefits which are far more difficult to describe, yet easy to recognize, it would be necessary to copy the whole report. Where the sympathetic or motherly

instinct is reinforced by manual skill and intelligence, the results are beyond all proportions of mere theoretical knowledge. Sole dependence is not placed here upon the occasional lectures of assistant physicians, but there is a stated office of a "Superintendent of Nurses" to supervise the actual object-teaching, so that, as Dr. Cowles says, "the continuity of the work in its necessary details is sustained by services other than those of the already much occupied physician."

One very legitimate suggestion is made in connection with this subject: "This demonstration of what the nurse may be for the insane settles one of the problems of hospital construction. Buildings may be placed, as to distance from each other, without reference to the rule for closeness of surveillance by a medical officer, in order to secure kind and trustworthy care. It is equivalent to having a trusted supervisor in every building."

It is gratifying to note that the nursing reform inaugurated in Massachusetts has spread to other States, and that it will soon be the exception for each of our large institutions for the insane not to possess its training school. We believe that all the State hospitals in New York now have their courses of lectures to nurses, the Buffalo school having been the first in the field. At Utica the advantages of such systematic instruction are plainly apparent in the improved quality of the nursing, and only those who have been spasmodic in carrying out the new idea can fail to express hearty approval of the great advance that has everywhere been made since Dr. Granger read his paper at the Lexington meeting of the Association in 1886.

In this modern development of hospital treatment psychiatry is taking into itself the ethics of humanity, and science is putting value upon an element that looks very much like, if it is not the direct outcome of, Christian charity.

THE FIRES AT WORCESTER AND LITTLE ROCK.—The past quarter has witnessed two serious fires in large asylums for the insane, and while the damage to property was considerable in both cases, it is a matter of congratulation that the calamity was not heightened by loss of life.

At the Worcester Insane Asylum fire was discovered in a water closet in the lower story of the extreme north wing, about 7.30 P. M., January 19th. It started from a lighted paper thrown down the vault by one of the attendants. The closet was a relic of other days and the only one

of its kind remaining in the house. It has what is known as the "Worcester hopper," a hopper running straight down to an S trap. Above the trap is a ventilating arm which discharges into a shaft immediately behind the seat. This ventilating shaft, running direct to the attic, is of wood on two sides, the brick wall of the room forming the other two. The wonder is, not that the fire should have occurred as it did, but that the same thing had not happened before in some one of the many closets of this style in use all over the house for many years, and every one of which must have lighted paper thrown down its vault to try ventilation, if for no other purpose.

The fire had undoubtedly been burning some time when discovered (probably half an hour), as the roaring of the flames in the ventilator first attracted the attention of the attendants. It was then in the attic and entirely beyond control. When Dr. Quinby, the superintendent, arrived upon the scene, after sending in an alarm, the fire had burst open the attic door from the inside and filled the doorway with a solid mass of flame. He saw at once that it was useless to spend valuable time trying to fight the fire, and therefore had all hands turn to the work of getting out the patients and moving them to the next ward. It did not seem necessary to move them further because the fire department, it was thought, would, on its arrival, be able to confine the fire to the wing in which it originated, as solid brick walls separate each wing from the wards adjoining. For some reason, however, (the pulling of two boxes simultaneously, according to the city electrician), the fire alarm failed to strike properly, sending part of the department to the other end of the city, but this proved not an unmixed evil, for it gave time to get out nearly all the patients before the arrival of the firemen, leaving the latter free scope when they did arrive. On account of this loss of time the fire got under increased headway, and, through a fault in the party wall, crept over into the next or "wing" attic, scorching it somewhat, but doing no serious damage.

The entire loss will hardly reach five thousand dollars, and is confined mostly to the attics, the only injury done to the wards proper being by water. The fire could not have happened at a more opportune time, as extensive repairs were contemplated for the burned building. Re-construction is better than repair, and payment by a special appropriation is better than a draft upon the current funds. The Legislature has granted the sum of twelve thousand dollars to enable the hospital to make good its loss.

Fire was discovered about 3.30 A. M., Sunday, February 16th, in the engine-house of the State Asylum, Little Rock, Ark., the whole interior of which was already in a blaze. The pumps were of course inaccessible, and could not be used. The steward telephoned to town at once for an engine, and the employés went to work as well as they could with the water in the attic tank. The pressure was not strong enough to throw water to any height, and it soon became evident that the building containing the kitchen, laundry and bakery was doomed.

That building was connected with the main building by a one-story passage about thirty feet long. Fortunately there was little wind, and by great exertions the fire was held in check at this point until 6 A. M., when the engine arrived from town, having being delayed by the badness of the road. It made short work with what was left of the fire.

Soon after the fire was discovered, the patients were got up, dressed, and taken to the end wards on the ground floor. There would have been no loss of life even if the whole establishment had burned.

A considerable part of the fixtures was saved, and Dr. Hooper went to work at once to get things in running order again. Cooking and laundry arrangements were extemporized; water connections were made Monday night, and the bakery was in operation Thursday. Heating connections were not complete till Friday. Fortunately, the weather was mild, most of the time, and only a part of the building was heated from the central boilers, so there was little suffering from cold.

The Trustees decided to re-build at once. The loss is estimated at from \$20,000 to \$25,000.

In view of the fact that two and a half hours were consumed in bringing the fire department from the city to the hospital by reason of abominable roads, the thought suggests itself that the institution is of sufficient benefit to the municipality to warrant the laying of a pavement that shall be a credit rather than a disgrace to the city of Little Rock.

THE STATE COMMISSION IN LUNACY.—The first annual report of the State Commission in Lunacy, a commission composed of Dr. Carlos F. Macdonald, Hon. Goodwin Brown and Hon. Henry A. Reeves, and organized last year under Chapter 283 Laws of New York, to supersede the single commissionership of the Laws of 1874, is in many respects a remarkable document. The creation

of the new Commission was a recognition by the people of the necessity for placing the relations of the State to its insane upon a more comprehensive basis, and the record of its year's work is a sufficient token of its *raison d'être*.

It appears that the number of insane in custody in the State, in all institutions, public, quasi-public and private, on the first day of October, 1889, was 15,507, while the number of idiots thus confined was 477, and of feeble-minded women 250. The number of insane in the State hospitals was 5,442; in the counties of New York, Kings and Monroe, 6,970; in exempted counties, 1,848; in non-exempted counties, 385; in city alms-houses, 6; in quasi-public institutions, 541; in private asylums, 315.

Elaborate and valuable as is the statistical work of the Report, its chief interest lies in the Commission's fearless denunciation of the county system of care. Some idea of the evils inherent in that system may be obtained by perusal of the report, published elsewhere, of the recent hearing before a committee of the assembly on the State care bill. While others have labored heroically in the same righteous cause, notably the State Charities Aid Association, with whom the project of State care originated in 1887, and the standing committee of the State Board of Charities under Hon. Oscar Craig, it is no exaggeration to say that the report of the new Commission in Lunacy, by stirring up public opinion in behalf of the oppressed, gave county care its *coup de grâce* in the State of New York.

Now that the State care for all the dependent insane is an accomplished fact, at least so far as existing accommodations will admit, it is not necessary to refer to the abuses with which the Report deals. Suffice it to state the recommendations of the Commission to the legislature in this connection. These were:

1. That all of the insane in the county poor-houses in all of the counties of the State, except New York and Kings, be transferred at the earliest practicable date to State asylums.

2. That to each State asylum should be assigned a certain number of counties having reference to population, proximity to and capacity of the asylum, etc., as a district from which all the insane resident therein shall hereafter be sent to said asylum.

3. That the State erect comparatively inexpensive buildings on the grounds of the State asylums, at a total cost for construction, equipment and furniture not exceeding \$550 per patient.

4. That the State assume the entire expense, not only of clothing and maintaining the insane, but also of removing them to and returning them from the asylums.

5. That the legislature at its present session make a sufficient appropriation to commence the work of erecting and fitting up these buildings.

The Commission recommends the adoption of a uniform system of accounts and statistics for all the State institutions for the insane, and has already had a conference with the officers of the several asylums with that object in view. It suggests that under no circumstances should process be served upon patients in custody except by a public officer and upon the direction of the court, which shall have been informed that the person is in such custody. It recognizes the necessity for revision of the statutory provision for the discharge of patients on bonds and recommends that the whole practice should either be discontinued or that the statute should be so amended that it can and will be enforced.

As regards the chief medical officers of asylums, the Commission favors the co-existence of full power with full responsibility in such matters as the discharge of patients and appointment of subordinates. "The superintendent is appointed on the theory that he is competent for the position. If he is competent, he should be allowed to select and remove his subordinates. If he is not competent, he should not hold the position." Those who subscribe to the hospital idea of asylums will concede the force of the Commission's opinion that the question of discharge is solely one for the medical officers and approve the recommendation to amend a law which, in some of the State institutions, has been honored in the breach in so far as it has given rise, if not to evasions, at any rate to a practice on the part of trustees of ratifying *nunc pro tunc* the acts of their superintendent.

The Commission, recognizing the fact that the institutions of the State are designed primarily to receive and treat the dependent insane, does not approve the reception of patients of the private class except as contemplated in the statute.

It takes high ground in recommending the abolition of all distinction in law and medicine between acute and chronic insanity. In other words it favors the repeal of all statutes tending to fix chronicity, thus again accentuating the *hospital* idea.

Other recommendations are: that the law be amended so as to permit the transfer of patients from one asylum to another; requiring production of the record and permitting the medical officer in charge of an asylum to testify upon the return of a writ of *habeas corpus* sued out to discharge a patient; that the insane State paupers be provided with a different method of treatment

from that given to sane State paupers, and finally, that an asylum be provided for the helpless and unteachable idiots.

The Commission and the insane of New York are alike to be congratulated on the progress made during the year as exhibited in this admirable report.

THE TENTH INTERNATIONAL MEDICAL CONGRESS will be held at Berlin, August 4th-9th, 1890. The Committee of Organization for the Section for Neurology and Psychiatry is composed of the following physicians: Drs. Binswanger, of Jena; Emminghaus, of Freiburg; Erb, of Heidelberg; Flechsig, of Leipsic; Fürstner, of Heidelberg; Grashey, of Munich; Hitzig, of Halle; Jolly, of Strassburg; Laehr, of Berlin-Zehlendorf. All communications should be addressed to Dr. H. Laehr.

STATE *versus* COUNTY CARE.—The State Care Bill, providing State care for all the dependent insane in the State of New York, became a law April 15, 1890. By signing this bill Governor Hill consummated one of the most signal triumphs ever achieved for humanity in the State of New York. All honor to those good men and women who have labored zealously day in and day out for the past three years to bring about this happy result. In the general rejoicing there will be no cavilling as to who is entitled to the lion's share of credit, though all must recognize the important part played in this great reform by the State Commission in Lunacy. Suffice it that that which has been known successively as the Curtis, the Batcheller and the Acker bill is now safe on our Statute books as Chap. 126 of the Laws of 1890.

ANNUAL MEETING OF THE ASSOCIATION.—The Annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, will be held at the International Hotel, Niagara Falls, June 10th, 1890, under the presidency of Dr. W. W. Godding, of Washington, D. C. Those who intend to read papers should send titles to Dr. J. B. Andrews, Buffalo State Hospital, Buffalo, N. Y.

ASSAULT UPON A SUPERINTENDENT.—Dr. J. S. Dorset, superintendent of the State Lunatic Asylum, Austin, Texas, was severely beaten with a mop in the hands of a violent patient last month. The assailant was controlled by the delusion that Dr. Dorset had it in his power to have prevented the execution of a certain des-

perado who was hanged in San Antonio a few months ago. We are happy to learn that the Doctor has fully recovered from the effects of the assault.

—Dr. William D. Granger, formerly assistant physician at the Buffalo State Hospital, has opened a hospital in New York for the reception of a limited number of patients of the private class.

—Dr. Selden H. Talcott, superintendent of the Middletown State Hospital, has been elected an associate member of the Society of Mental Medicine of Belgium.

APPOINTMENTS AND RESIGNATIONS.—Dr. H. J. Brooks has been elected superintendent of the Illinois Northern Hospital for the Insane, vice Dr. E. A. Kilbourne, deceased.

Dr. A. J. Thomas, assistant superintendent of the Indianapolis Asylum, has been elected superintendent of the new State Hospital at Evansville, Ind.

Dr. T. J. W. Burgess, assistant superintendent of the Asylum for Insane, Hamilton, has been appointed Medical Superintendent of the new Protestant Hospital for Insane, now being erected in Montreal. Dr. Burgess has had some sixteen years' experience in the asylums of Ontario, and his appointment is regarded with satisfaction by those in the service. The hospital will be ready for occupation on May 1st, 1890, and it is the intention of the management to keep the institution up to the requirements of the age.

Dr. W. W. Hester, has resigned his position as first assistant physician at the Illinois Southern Hospital for the Insane at Anna, after a continuous hospital service of twenty-five years, "to make room for political spoilsmen."

Sweeping changes have been made in the State charitable institutions of Ohio. Much regret will be felt over the removal of Dr. A. B. Richardson, who for nine years has rendered the State excellent service as superintendent of the Athens asylum. He is succeeded by Dr. W. P. Crumbacker who was an assistant under Dr. Richardson for about four years.

At Columbus Dr. McMillen has been removed and almost a clean sweep made of the subordinate officers. Dr. McMillen's successor is Dr. Morse, formerly superintendent of the Dayton asylum. Dr. Pollock of the Dayton Asylum is another victim, and Dr. Pratt, of the Deaf and Dumb Asylum, has also been compelled to resign. Thus far Dr. Tobey remains at Toledo, probably from a not unnatural hesitancy on the part of the powers that be to disturb the *status quo* of that asylum.

OBITUARY.

EDWIN ARIUS KILBOURNE, M. D.

In the death at Elgin, Illinois, on February 27th, 1890, of Dr. Edwin Arius Kilbourne, that portion of the medical profession of our country interested in the care and treatment of the insane, lost one of its honored associates; the American Association of Medical Superintendents lost a distinguished *confrère*, and many of its members personally a warm and highly valued friend. The State of Illinois was deprived of an able, honest and accomplished executive officer, the sufferers from insanity lost a faithful and enthusiastic laborer in their cause, while the beloved family were bereft of a husband and father of so kindly, generous and loyal a nature as to make the loss one of keen and crushing force. As one who knew him well from long and intimate association I may speak of Dr. Kilbourne with fondness, but I trust not without moderation and justice.

The life on which so sad a silence has now fallen was one of zealous endeavor after excellence in personal and professional life, and through it all, there ever beat a warm and earnest heart which gave the impress of Dr. Kilbourne's personality to everything which he touched. His individuality was strong. It was impossible for him to be other than himself in all his activities, and in his uncompromising adherence to what he advocated, he often provoked opposition and was sometimes misunderstood, but none could fail to acknowledge his faithfulness to conviction and principle, and his positive and outspoken self-assertiveness were manly and endearing traits, even to those who differed from him. He was a good fighter and a cordial hater, such as men respect, and his very earnestness made his prejudices strong.

There was in him an inborn fondness for art and an enthusiasm for all that was eminent and noble. He was especially a lover of music, and possessed of a keen relish for humor. He was also a good story teller, and often happy in his embellishment of conversation with racy anecdote.

It is sad to think he is gone from among us at the early age of fifty-three, and to reflect that probably but for his unwearying and indefatigable labors in his official position, and the unsparing zeal with which he plunged into his work, often denying himself rest and recreation which were sadly needed, he might to-day, perhaps, be standing in the position he so ably filled, in health and vigor unabated.

I will here briefly give some of the main facts of his career. Dr. Kilbourne was born in Chelsea, Vt., March 12th, 1837. When he was five years old his family removed to Montpelier, Vt., where he attended school and academy until he was eighteen. When Dr. Kilbourne was seventeen years of age the family were deprived by death of the presence and aid of the father, a man of integrity and Christian worth; and the more serious responsibilities of life began to be felt. After assisting at home as long as needed, he went, at about twenty, or in 1857, to assist an older brother who was practicing dentistry in St. Johnsbury, Vt., and the same year began the study of medicine, which he continued with various interruptions—notably his three years' service in the war of the rebellion—until he finally graduated and entered upon medical practice after the close of the war, in 1868.

Dr. Kilbourne, at St. Johnsbury, and subsequently at Bradford, practiced dentistry and continued his medical studies, lecturing also upon medical subjects and upon temperance, and taking an interest in all the important social and political topics of that stirring period which preceded the civil war.

When the call to arms resounded among the quiet hills of Vermont, a prompt response came from that loyal little State, and, as a member of the "Bradford Guards," Dr. Kilbourne entered the three months' service. Among the earliest, this organization volunteering in a body on April 20th, 1861, and forming a company in the first regiment Vermont sent to the field. Dr. Kilbourne, after being mustered out in June, 1861, was, however, still full of patriotic fervor, and again went out as captain in the Ninth Vermont Volunteers, with which he served until his health gave way, and he was under the necessity of resigning just before the close of the war. During the winter of 1864 and 1865 Dr. Kilbourne read medicine and attended the courses of the Georgetown Medical College, at Washington, D. C. The next year he spent at the medical school and laboratory of the University of Michigan, at Ann Arbor, and the following year continued his studies in New York, under Prof. Willard Parker, as his preceptor, and graduated at the College of Physicians and Surgeons in 1868. He was then for some time assistant physician in the New York City Asylum for the Insane, where he devoted much attention to insanity and nervous diseases; though not intending at the time to make that specialty his life-work. He next entered the competitive examination at the Brooklyn City Hospital, and passing successfully, secured a position which gave him a year's valuable experience as house physician and surgeon. Dr. Kilbourne, after

his year in Brooklyn, engaged as surgeon on one of the ships of the "Black Ball" line, thus securing an opportunity to spend some time in Europe. He utilized this opportunity by attending the clinics at the London hospitals of "St. Thomas and Guy's," and receiving instructions in the wards of these famous institutions. Also at Paris he passed some months in attendance at the Medical School and in gaining clinical instruction; among other things visiting the cliniques of "La Salpêtrière."

Returning home from Europe, Dr. Kilbourne went to Illinois and engaged in the general practice of medicine at Aurora, but was only a short time in practice there when he received the appointment of Medical Superintendent of the Illinois Northern Hospital for the Insane at Elgin, a State institution, one wing of which was just nearing completion, whose Board of Trustees, after careful investigation, chose Dr. Kilbourne as having superior qualifications for the position. He entered upon his duties at Elgin, September 15th, 1871, and continued in charge of this great charity of the State until his death in February, 1890, a period of nearly nineteen years.

At the next session of the legislature after Dr. Kilbourne's appointment, appropriations were made for the completion of the hospital, and in 1875 it was completed, furnished and occupied with its full capacity of 500 patients.

The institution grew year by year into greater beauty and completeness under Dr. Kilbourne's guiding hand and earnest purpose to attain all possible excellence, and high is the rank among similar establishments to which he has brought this beautiful and stately dwelling-place of the sufferers from insanity.

The ornamental grounds possess a finish and picturesqueness such as have been seldom witnessed; with their smooth lawns, arbors, greenhouses, lakes and fountains, while the interior finishing and appointments are attractive, bright and orderly to a degree which is the wonder and delight of patients and visitors. Who can estimate the value to the thousands of unfortunate ones who from time to time have passed through this beneficent institution, of the labors of their departed friend in providing for them a tranquil, delightful abode, meeting the sanitary requirements, gratifying the tastes, and orderly and cleanly to an admirable degree? This institution cannot fail to supply an endearing monument to the fame of our departed brother.

Dr. Kilbourne was married, January 3d, 1860, to Sarah Jane Hardy of Vermont, and their only child died in infancy, and was followed soon after by the young mother. He was again married

in 1872 to Louisa Bowler, daughter of Edward Kilbourne, Esq., of Keokuk, Iowa. Three children were borne of this union, and are still living, a daughter and two sons.

Dr. Kilbourne was a member of the Fox River Medical Society, of the Illinois State Medical Society, of the American Medical Association, of the Medico-Legal Society of New York, and of the Association of Medical Superintendents of American Institutions for the Insane.

For the last four or five years of his life Dr. Kilbourne's health was much impaired through a long illness brought on by overwork, which nearly cost him his life and left him his constitution impaired and a chronic rheumatic condition of joints and system. He suffered a slight paralytic attack about Thanksgiving time, 1889, which was followed by more serious attacks of the same kind, the last occurring a few days before his death in February of the present year.

The enforced idleness of his illness was peculiarly trying to his earnest spirit, and he often felt life to be of little worth while giving scope no longer to the useful activity that was his wont. He looked forward bravely and calmly to the end, and accepted the hard conditions with the spirit of a good soldier in the battle of life.

"The future hides in it
Gladness and sorrow,
Still we press thorow,
Naught that abides in it
Daunting us—onward."

The above from a writer who was a favorite with Dr. Kilbourne, expresses not inaptly the courage and fortitude of his later years, and indeed of his whole life.

As the funeral train followed his mortal remains winding up the slightly hill where they are to lie buried, and as the last honors were paid him, one could but think of Kreutzer's beautiful dirge, loved by him, and of the lines—

"To their long home on the mountain
All at last consigned must be."

Did I say the "last honors?" No—not the last, but, viewing the short span of human life and the long future in which the renown of Dr. Kilbourne shall be recognized as his work, continues to testify of him, I might say the "first honors" to his fair fame.

The beautiful spot where he is buried was chosen by him and affords a fine view in the distance of the institution to which so much of his life was devoted.

"To his ashes—peace,
To his memory—a benison."

R. D.

CARL FRIEDRICH WESTPHAL.

Dr. Westphal, privy councillor, and professor of mental and nervous disorders in the Berlin University, died of general paralysis, at Constance, January 27, at the age of fifty-seven.

In the death of this celebrated man Germany lost a practical reformer and science an earnest devotee. There is, perhaps, no better surviving example of the practical, progressive and at the same time scientific alienist and physician than was Professor Westphal. Receiving a thorough training in early life in general and medical science at Berlin, Heidelberg and Zürich, he began his medical career at the age of twenty-five as assistant physician in the Charité Hospital at Berlin. After serving six months in the department for small-pox, he exchanged for the position of assistant in the insane department and at once evinced a strong predilection for psychiatry. In 1861, he qualified as *Docent* in psychology in the Berlin University, and had lectured there since 1862. In 1869, he succeeded Dr. Griesinger as Professor Extraordinary of Mental Therapeutics and Medical Director of the section for Mental and Nervous Disorders. In 1871, he added to these two clinics an ambulance clinique for nervous patients. In 1874, he was promoted to ordinary professor and became a member of the scientific deputation of Public Medicine.

Westphal's psychological career began under Ludwig Ideler at a time when mechanical restraint and severity were prominent features of asylum treatment although contemporary reformers, especially in England and Scotland, were pointing the way to a new era. He broke away from local influences; his interest and enthusiasm were excited by Dr. Conolly's writings and example and he made a prolonged visit to the British Isles to study the practical care of the insane. As a result of his relationship with such men as Tuke, Robertson, Maudsley and Savage his ideas became convictions and he returned to put them into practical execution.

Dr. Westphal was for nearly twenty years editor of the *Archiv für Psychiatrie*. He made many important contributions to medical science and is quoted in neurological literature as an original investigator. His chief works are: *Researches into the Diseases of the Cord in Progressive Paralysis*; *Researches on Epilepsy*, (including Epilepsy induced experimentally in animals); *Observations and Reflections on Paranoia*; *Agoraphobia*; *Imperative Conceptions*; *Contributions to the Symptomatology and Pathological Anatomy of Tabes Dorsalis* (with the important discovery of "Westphal's symptom). In addition to these may be mentioned his researches into the combined disorders of the spinal cord, the formation of vacuoles, pseudo-sclerosis, Thomson's disease, &c. Of late years he studied the various forms of ophthalmoplegia, making important contributions to the pathology of that affection and to brain-anatomy.

in 1872 to Louisa Bowler, daughter of Edward Kilbourne, Esq., of Keokuk, Iowa. Three children were borne of this union, and are still living, a daughter and two sons.

Dr. Kilbourne was a member of the Fox River Medical Society, of the Illinois State Medical Society, of the American Medical Association, of the Medico-Legal Society of New York, and of the Association of Medical Superintendents of American Institutions for the Insane.

For the last four or five years of his life Dr. Kilbourne's health was much impaired through a long illness brought on by overwork, which nearly cost him his life and left him his constitution impaired and a chronic rheumatic condition of joints and system. He suffered a slight paralytic attack about Thanksgiving time, 1889, which was followed by more serious attacks of the same kind, the last occurring a few days before his death in February of the present year.

The enforced idleness of his illness was peculiarly trying to his earnest spirit, and he often felt life to be of little worth while giving scope no longer to the useful activity that was his wont. He looked forward bravely and calmly to the end, and accepted the hard conditions with the spirit of a good soldier in the battle of life.

"The future hides in it
Gladness and sorrow,
Still we press thorow,
Naught that abides in it
Daunting us—onward."

The above from a writer who was a favorite with Dr. Kilbourne, expresses not inaptly the courage and fortitude of his later years, and indeed of his whole life.

As the funeral train followed his mortal remains winding up the slightly hill where they are to lie buried, and as the last honors were paid him, one could but think of Kreutzer's beautiful dirge, loved by him, and of the lines—

"To their long home on the mountain
All at last consigned must be."

Did I say the "last honors?" No—not the last, but, viewing the short span of human life and the long future in which the renown of Dr. Kilbourne shall be recognized as his work, continues to testify of him, I might say the "first honors" to his fair fame.

The beautiful spot where he is buried was chosen by him and affords a fine view in the distance of the institution to which so much of his life was devoted.

"To his ashes—peace,
To his memory—a benison."

R. D.

CARL FRIEDRICH WESTPHAL.

Dr. Westphal, privy councillor, and professor of mental and nervous disorders in the Berlin University, died of general paralysis, at Constance, January 27, at the age of fifty-seven.

In the death of this celebrated man Germany lost a practical reformer and science an earnest devotee. There is, perhaps, no better surviving example of the practical, progressive and at the same time scientific alienist and physician than was Professor Westphal. Receiving a thorough training in early life in general and medical science at Berlin, Heidelberg and Zürich, he began his medical career at the age of twenty-five as assistant physician in the Charité Hospital at Berlin. After serving six months in the department for small-pox, he exchanged for the position of assistant in the insane department and at once evinced a strong predilection for psychiatry. In 1861, he qualified as *Docent* in psychology in the Berlin University, and had lectured there since 1862. In 1869, he succeeded Dr. Griesinger as Professor Extraordinary of Mental Therapeutics and Medical Director of the section for Mental and Nervous Disorders. In 1871, he added to these two clinics an ambulance clinique for nervous patients. In 1874, he was promoted to ordinary professor and became a member of the scientific deputation of Public Medicine.

Westphal's psychological career began under Ludwig Ideler at a time when mechanical restraint and severity were prominent features of asylum treatment although contemporary reformers, especially in England and Scotland, were pointing the way to a new era. He broke away from local influences; his interest and enthusiasm were excited by Dr. Conolly's writings and example and he made a prolonged visit to the British Isles to study the practical care of the insane. As a result of his relationship with such men as Tuke, Robertson, Maudsley and Savage his ideas became convictions and he returned to put them into practical execution.

Dr. Westphal was for nearly twenty years editor of the *Archiv für Psychiatrie*. He made many important contributions to medical science and is quoted in neurological literature as an original investigator. His chief works are: *Researches into the Diseases of the Cord in Progressive Paralysis*; *Researches on Epilepsy*, (including Epilepsy induced experimentally in animals); *Observations and Reflections on Paranoia*; *Agoraphobia*; *Imperative Conceptions*; *Contributions to the Symptomatology and Pathological Anatomy of Tabes Dorsalis* (with the important discovery of "Westphal's symptom). In addition to these may be mentioned his researches into the combined disorders of the spinal cord, the formation of vacuoles, pseudo-sclerosis, Thomson's disease, &c. Of late years he studied the various forms of ophthalmoplegia, making important contributions to the pathology of that affection and to brain-anatomy.

As a writer, Professor Westphal was clear and succinct and confined himself to facts. As a teacher in the University, his pupils and assistants found in him the same qualities combined with earnestness and enthusiasm.

At a meeting of the Berlin Medical Society called in memory of the deceased, Professor Virchow eulogized him as a teacher and investigator whose work will never be forgotten. A.

MAX LEIDESDORF.

Dr. Max Leidesdorf, formerly Professor of Psychiatry in the Vienna University, and one of the foremost of Austrian alienists, died October 9, 1889, at the age of seventy-three.

The life of Professor Leidesdorf is an example of what may be accomplished by a man of intellectual ability, ambition and indomitable energy, in a constant struggle with limited means and no social advantages or influence.

He was born at Vienna, graduated at Bonn, and after an educational trip to France and England obtained charge of a private asylum in St. Petersburg. He soon returned to Vienna and for nearly thirty years directed, with Dr. Obersteiner, Sr., the private asylum at Döbling, founded by Dr. Georgen. In 1866, he obtained the chair of Psychiatry in the University of Vienna and became a gold medallist. About 1872, after repeated disappointments, he gained greater opportunities for clinical research in the general hospital of Vienna and soon succeeded Dr. Schläger as director of the department for mental disorders. He seemed to have before him a constant aim and purpose; but his difficulties were many and it was not until 1875 that at last, through Professor Meynert, he became Clinical Teacher of Psychiatry and ultimately obtained an observation ward in the public asylum for Lower Austria. After thirteen years of conscientious labor he was compelled by sickness to retire from his post.

Leidesdorf's writings are mostly on insanity and are valuable. Among them are: *Insanity and Lung Disease*; *On the Causes of Insanity*; *On the Condition of the Brain in the Primary Forms of Insanity*; *The Sympathy between the Brain and the Nerves of the Body in Insanity*; *Chorea Minor in its Relation to Psychological Disorders*; *Brain-Syphilis in relation to Mental Disorders*. In 1860, he published "*Pathology and Treatment of Mental Disorders*," and in 1865, his *Manual of Insanity*.

Professor Leidesdorf was gifted with a conciliating character and great personal attractiveness. Professor Wagner refers to him in his obituary notice* as having been "heart and soul a teacher."

In the deaths of Westphal and Leidesdorf, Germany loses two of her foremost alienists. A.

*See *Journal of Mental Science*, April, 1890.

CASCARA SAGRADA.

Necessity of Using Properly Aged Bark in Manufacture—
Extension of its Therapeutic Application and
Improved Forms for Administration.

Notwithstanding the activity of research in the discovery of new therapeutic agents, and the efforts made to supplant it, Cascara Sagrada remains to-day easily chief of the remedies for the radical relief of chronic constipation.

Not only this, but the range of application of Cascara Sagrada has been extended to the treatment of Rheumatism, and in this disease, alone and in combination with the Salicylates, it has proved in the experience of many eminent physicians radically curative.

The physician now has the choice of several eligible forms in which to prescribe it; the fluid extract containing the bitter principle; the fluid extract formula, 1887, comparatively free from bitterness and equally efficacious in the majority of cases; soluble elastic capsules of the extract, from one to three grains; pills of the extract, alone or in combination with adjuvants, and many other eligible forms.

Authorities agree in regarding Cascara bark that has been aged for at least a year, as alone eligible for use in manufacture. Preparations made from bark thus aged are free from the irritant properties of the fresh bark. It is well known that the scarcity of Cascara has led to the use by some manufacturers of the fresh and irritant bark, and in this connection it gives us pleasure to assure physicians that all our preparations of Cascara are made from the properly aged stock, of which we have on hand an abundant supply.

Any therapeutic action inherent Cascara Sagrada is only possessed by the true *Rhamnus Purshiana*, and there being many inferior and spurious preparations of the drug in the market, we would ask physicians in prescribing to specify our product. Having introduced this drug and made a special study of its nature and action for years, and having unequaled facilities for obtaining supplies of the highest quality, we believe our product to be superior to any other offered.

We would particularly request physicians who have not yet met with success in the use of Cascara Sagrada to ascertain the product they are prescribing, and to make trial of that of our manufacture.

Working bulletins and interesting literature relative to Cascara Sagrada furnished to physicians, free, on request.

PARKE, DAVIS & CO.,
DETROIT and NEW YORK.

DAVID B. CROCKETT'S



David B. Crockett

No. 1 PRESERVATIVE

Or Architectural Wood Finish

IS THE BEST MATERIAL IN THE MARKET

FOR FLOORS OF ASYLUMS, HOSPITALS AND HOTELS,

ALSO FOR FURNITURE AND OIL CLOTHS,

And to take the Place of, and Superior to Varnish for Inside Work.

A Transparent Coating for Finishing and Preserving Hard Woods in Public Buildings, Churches, Hospitals, Steamships, Yachts, Private Dwellings, Floors, etc.

The best material ever devised for the interior **Preservation** of wood, making it practically indestructible, by rendering it impervious to moisture. It also develops its natural beauty, bringing out the grain and forming a hard, brilliant surface superior to the best English Varnish. It is especially suitable for **Bath Rooms, Sinks, Floors**, and all places requiring frequent cleansing, for, unlike Varnish, it is in no wise injured or its lustre impaired by repeated washings, and by filling the pores of the wood it **excludes the germs of Disease and prevents Contagion**. These qualities make it indispensable for Hospitals, Asylums and all institutions of a similar character.

TO ARCHITECTS, CONTRACTORS AND BUILDERS.—Owing to the numerous imitations of these goods by different varnish manufacturers, and all claiming their products to be superior, we have been compelled, for the protection of the **consumer**, to request the Architects to carefully read the following facts and instructions regarding the **genuine goods** manufactured by us.

David B. Crockett's No. 1 "Preservative," for Interior Use, has no equal for Durability.

OUR ELASTIC OIL FINISH. As a cheaper article for same purpose, has no equal in all the grades of Oil Finishes manufactured.

(The cans containing the Elastic Oil Finish do not bear our trade mark or signature, as it does not come under the head of David B. Crockett's genuine goods. But the fact of its being manufactured by the David B. Crockett Co., is sufficient guarantee of its quality.)

DAVID B. CROCKETT'S SPAR COMPOSITION, for all exterior finish on hard or soft woods, or over grained work, has never been reached by any varnish manufacturers, although they have been putting forth their best endeavors for the past twenty years. We have carefully prepared the following instructions for using our goods.

FOR INSIDE FINISH ON HARD WOOD.—One coat Filler, two coats No. 1 "Preservative." Rub down with curled hair or excelsior between coats when dry, say in about twenty-four hours.

If for cheaper work, use two coats of our Elastic Oil Finish in the same way.

FOR OUTSIDE WORK.—As Front and Vestibule Doors, Porches, Floors, etc., one coat Filler, one coat No. 1 "Preservative." Rub down same as for inside work and give finish coat of "Spar Composition."

All soft or close-grained woods **need no filler**, only two coats of No. 1 "Preservative," or Elastic Oil Finish.

On grained work, inside, two coats No. 1 "Preservative."

On grained work, outside, one coat No. 1 "Preservative."

Rub down as above and finish with "Spar Composition."

NOTE.—If an extra fine finish is required on inside work, give an additional coat of either the No. 1 "Preservative" or Elastic Oil Finish.

Should you wish a flat surface (no gloss), let the work stand three or four days, and rub down with powdered pumice stone and water. A piece of sponge with the pumice stone and water will be sufficient to deace the gloss surface.

N. B.—If these instructions are carried out by the painter, we will **warrant** the work to outwear any material used for the same purpose.

Samples of Wood Finished with the Preservative or Elastic Oil Finish will be furnished upon application to

DAVID B. CROCKETT CO., Bridgeport, Conn.

New York Business Office, 84 William St., cor. Maiden Lane.

N. Y. P. O. Box 3787.

NOTICE.—As numerous manufacturers have closely imitated our Patented Trade Mark and Labels, we would caution the purchaser before buying to see that the name of **D. B. Crockett** is on handle, and **Patented Trade Mark** stamped on every can and printed on label.

Respectfully yours,

DAVID B. CROCKETT CO.

For sale by all Dealers in Paints, Oils and Drugs in the United States.

—FOR—
ASYLUMS, HOSPITALS, AND OTHER PUBLIC INSTITUTIONS.

No. 1.—Diameter inside, 9 inches, depth 6½ inches.

No. 2.—Diameter inside, $7\frac{1}{8}$ inches, depth $5\frac{1}{8}$ inches.

We have improved the Chamber by rounding them out at the bottom on the inside, avoiding the sharp corner, making them easier to clean.



No. 1.—Price Net,	\$9.00 per Doz.
No. 2.—“	“
	\$7.00 “

Although only on the market since the 1st of May, 1887, over fifty different institutions are now using them.

F. O. B. cars at Portland, Me., or Cuyahoga Falls, O.

These articles manufactured under patent, are formed from liquid wood pulp to the shape, and while in a plastic state subjected to heavy and equal pressure on all sides. They are then dried, smoothed and repeatedly soaked in various patented indurating compositions and baked. The result is handsome y finished, strong, seamless, odorless, unpainted, unvarnished articles which will not shrink, swell, crack, absorb moisture nor increase in weight. They are not affected by hot water nor ordinary acids. In all these respects they are superior to paper, or any other pulp ware. They are superior to earthen in that they are light and cannot as effectively be used as a weapon. There are no sharp or cutting edges on them.

We manufacture largely **Specialties in Heavy Tinware**, for Hospitals. Correspondence solicited.

MR. H. E. PARKS, Agt., Cuyahoga Falls, O.

GOVERNMENT HOSPITAL FOR THE INSANE.

WASHINGTON, D. C., Nov. 23, 1888.

DEAR SIR—Your Indurated Fibre Chamber pro
its purpose, and we have tried almost everything.

Very respectfully,

W. W. GODDING, Superintendent. ▀

H. E. PARKS, Esq., Agt., Cuyahoga Falls, O.

Jacksonville, Nov. 27, 1887. ■

DEAR SIR—Replying to yours of the 20th inst., will say: We have had some of your Indurated Fibre Chambers in use for about a year. They were placed in the wards for the most disturbed and excited patients, I find upon inquiry that none of them has ever been broken, and upon examination I find all of them in good condition.

I do not hesitate to recommend your Indurated Fibre goods as perhaps the best in the market. Certainly they are the best that have come to my notice for such use.

Yours very truly,

H. F. CARRIEL, Superintendent.

All orders should be addressed to

L. W. LOOMIS.

Or, H. E. PARKS, Agent.

CUYAHOGA FALLS, OHIO.

TIN CHAMBERS.

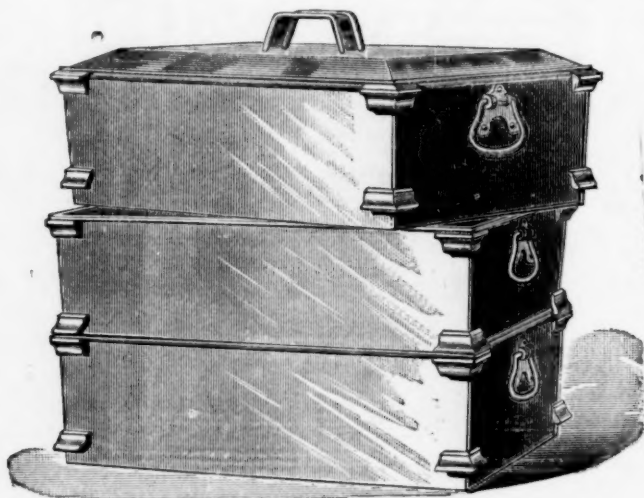
Same size as No. 1 Fibre, - - **\$6.00** per doz.

Indurated Chambers put up compactly in crates of half gross each.

 See that all Chambers have [this stamp] on the bottom.



NESTS VEGETABLE OR FOOD TRAYS,



For transporting food from kitchen to the wards. These trays are made AN EXACT DUPLICATE OF EACH OTHER, so they will fit any place in the nest, and the cover is made to fit either of them. We now put on each one, as represented by cut, malleable iron corners, which greatly add to the strength, preventing breakage at these points; made in this way they are almost indestructible. The sizes usually furnished are—

Each Tray 9x13, 4½ in. deep, and 10¼x15½, 5 in. deep,

Usually in nests of 2, 3 or 4.

We make other sizes if wanted, of xxxx stock. Each tray has a pair of malleable iron handles, thoroughly soldered inside and out; also the rods around the top are soldered in, and leaving no place for water they can be wiped dry. The rims to covers are beaded, leaving no raw edge to cut the hands; and the corners are strengthened with a "boss" in each. They take less room than round dishes on the food cars, fit the dumb waiters nicely, and put away snugly on the shelves when not in use.

We manufacture largely Tin Specialties for institutions, the ONLY HOUSE IN THE UNITED STATES DOING THIS, Coffee Cans, Soup Cans, etc., etc. Other ware made to specification. All ware reinforced extra strong. All Covers and Tops interchangeable, which will be appreciated. On application we furnish Catalogue representing some of the goods we manufacture. All Tin Ware made to order; none kept in stock.

REFERENCES—Nearly all of the State institutions.

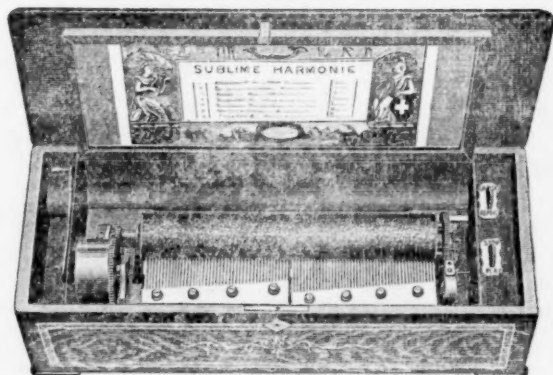
P. S.—We now use steel corners instead of malleable iron, (an improvement.)

Address,

L. W. LOOMIS, or
H. E. PARKS, Agent,
Cuyahoga Falls, Ohio.

PAILLARD'S MUSIC BOXES

The Delight of the Family.



No Home Complete without One.

ARE THE BEST AND MOST DURABLE.

They play best selections from all the STANDARD and LIGHT OPERAS, and the most popular DANCES, NATIONAL AIRS, BALLADS, HYMNS, etc.

The Most Complete and Varied Stock ever shown in this Country.

We have sold many musical boxes for the special use of insane patients, but our special plea for advertising in this magazine is the following recent testimonial:

STATE OF NEW YORK,
STATE LUNATIC ASYLUM,
G. ALDER BLUMER, M. D.,
Medical Superintendent.

DECEMBER 8th, 1888.

MESSRS. M. J. PAILLARD & Co., 680 Broadway, New York:

Gentlemen—Replying to your inquiry of recent date, it gives me pleasure to inform you that the musical box of your manufacture recently bought for this institution has proved a highly satisfactory purchase.

Our patients are frequently diverted by its lively airs, and I think it quite likely that we shall have occasion before long to call upon you for another instrument.

Very truly yours,

(Signed.)

G. ALDER BLUMER.

Illustrated Catalogue Mailed on Application.

M. J. PAILLARD & CO.,

680 Broadway, New York.

MUSICAL BOXES CAREFULLY REPAIRED.

"THE HARTFORD WOVEN WIRE MATTRESS CO.,"

P. O. Box 63, or 618 Capitol Ave.,

HARTFORD, CONN.,

Manufacturers of Hospital and Asylum Iron Bedsteads,

Numerous Designs.



In Large Variety and

Cots, Cribs, Fracture Beds, Invalid Beds, Beds with Headrests,

Bedsteads with Mattress to elevate and lower for convenience of attendants, Extension Columns, Canopy Bedsteads, Very Strong Bedsteads for Violent Patients.

Flexible Steel Wire Door Mats, especially suitable for Institutions, Woven Wire Mattresses of Styles and Sizes, Canvass Cots, Hair Mattresses and Pillows. All Iron Bedsteads with Wire Mattress, or Strap Iron Bottom Combined Woven Wire Bolsters.

Over 500,000 Hartford Mattresses and Iron Bedsteads in use in the Public Institutions of the United States. Adopted as the United States Government Standard.

Address for Prices, Catalogue, or any desired information—

THE HARTFORD WOVEN WIRE MATTRESS COMPANY,

P. O. Box 363, or 618 Capitol Avenue,

HARTFORD, CONN.

THE PRIVATE INSTITUTION
FOR FEEBLE-MINDED YOUTH,
AT BARRE, MASS.,

Established June, 1848,

Offers to Parents and Guardians superior facilities for the education and improvement of this class of persons, and the comforts of an elegant country home.

GEORGE BROWN, M. D., Superintendent.

JUST PUBLISHED.

A TEXT BOOK
—OF—
MENTAL DISEASES

Having Special Reference to the Pathological Aspects of Insanity.

By BEVAN LEWIS, L. R. C. P., M. R. C. S.,
Medical Director, West Riding Asylum, Wakefield, England.

18 LITHOGRAPHIC PLATES AND OTHER ILLUSTRATIONS.

Octavo. Cloth \$6.00.

.* Sent by mail prepaid upon receipt of price.

P. BLAKISTON, SON & Co., Medical Publishers, 1012 Walnut St., Philadelphia.

THE HIGHLAND HOME,
WINCHENDEN, MASS.,

A FAMILY HOME FOR THE

Treatment of Mental and Nervous Diseases,
Opium and Alcoholic Inebriety.

CONDUCTED BY

FREDERICK RUSSELL, M. D.

HEALTHY LOCATION. PLEASANT SURROUNDINGS.

The Journal of Mental Science,

(Published Quarterly by authority of the Medico-Psychological Association of
Great Britain and Ireland.)

Edited by Drs. D. HACK TUKE and GEO. H. SAVAGE.

London: J. & A. CHURCHILL, 11 New Burlington Street.

The Medico-Legal Journal,

A Quarterly devoted to the Science of Medical Jurisprudence.

Edited by CLARK BELL, Esq., 57 Broadway, New York.

DIAPHANITE

Is the most perfect article ever discovered for developing the beauty of all natural wood, and for finishing grained work. It will not blister, crack or turn white, but will fill the pores thoroughly, and will always give that smooth finish which lately has become so very desirable.

DIRECTIONS FOR USE.—Apply with brush same as shellac, and let each coat dry well before applying another.

DIAPHANITE HAS BEEN LARGELY USED IN THE
NEW STATE CAPITOL, AT ALBANY,

NEW YORK STATE LUNATIC ASYLUM,

Dr. G. ALDER BLUMER, Superintendent, Utica.

NEW YORK STATE LUNATIC ASYLUM, BUFFALO,

Dr. JUDSON B. ANDREWS, Superintendent.

WHITE FIRE-PROOF BUILDING, BUFFALO, N. Y.

NEW COUNTY HOUSE, ROME, N. Y.

ST. LUKE'S HOSPITAL, FAXTON HOSPITAL, OLD LADIES' HOME,

UTICA ORPHAN ASYLUM, HOUSE OF THE GOOD SHEPHERD,

PARK BAPTIST CHURCH, TRINITY CHURCH, UTICA,

and thousands of private and public buildings throughout the country.

TESTIMONIALS.

STATE LUNATIC ASYLUM, UTICA, N. Y.

Messrs. COMSTOCK BROS. & Co.—Actual experience with the preparation known as "Diaphanite" in this hospital, has shown it to answer an admirable purpose in filling the pores and developing the natural beauty of woods. It may be confidently recommended for use in hospitals for the insane, where cleanliness of wood work, hardness and elasticity of finish, and the prevention of absorption, are indispensable conditions of hospital economy.

G. ALDER BLUMER, Superintendent.

ROME, N. Y., August 1, 1887.

Messrs. COMSTOCK BROS. & Co.—*Gentlemen:* I have used your "Diaphanite" for the past eight years, and cannot speak too highly of it. The floors on which it has been used for a number of years are as hard as stone, and have a very high polish. I consider it especially good for use in hospitals, and rooms occupied by filthy patients, as it makes the wood impervious to liquids or filth, and prevents it from retaining any bad odor.

Respectfully yours,

THEO. S. COMSTOCK, Supt. Poor of Oneida Co.

OFFICE OF THE WHITE FIRE-PROOF BUILDING, BUFFALO, N. Y.

Gentlemen: Please send us immediately another barrel of DIAPHANITE. I am very much pleased with it, and you can refer any one to me with assurance that it will receive *very strong approval*. It is much better than the so-called wood preservative which we were using when Dr. Gray, superintendent of the N. Y. State Lunatic Asylum, recommended DIAPHANITE to me.

M. W. J. Behrens, our painter, praises it very highly.

Truly yours,

(Signed)

J. P. WHITE.

For an interior finish for dwellings, churches, school houses, public buildings, cars, and all wood work subject to heat, cold, water, &c., *Diaphanite* will give perfect satisfaction. The *soft, durable lustre* it imparts is in marked contrast to the sharp, glassy finish of the varnishes often used.

Address,

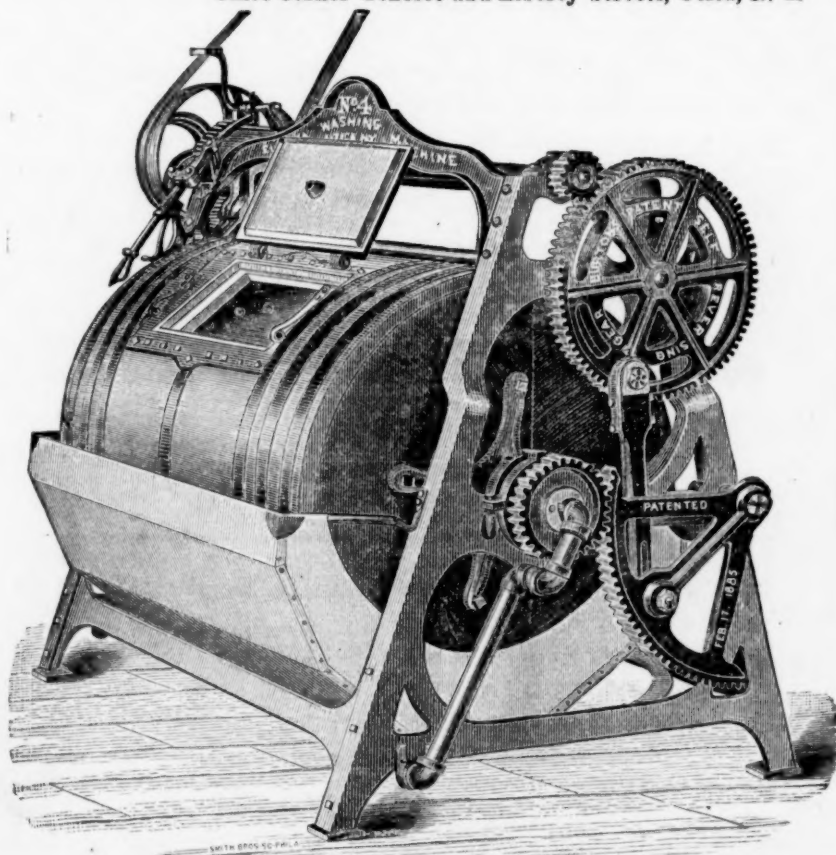
COMSTOCK BROS., Utica, N. Y.

E. HURLBURT,

**Manufacturer of Eureka Laundry Machinery, and Dealer in
General Line of Laundry Machinery and Appliances.**

Factory Corner South and St. Vincent Streets.

Office Corner Genesee and Liberty Streets, Utica, N. Y.



The above is a cut of the No. 4 Eureka Washer. This Washer is especially designed for institution work, and is the only machine thoroughly adapted for the same.

REFERENCES:

This Washer is used in the following institutions:

NEW YORK STATE LUNATIC ASYLUM,

PHILADELPHIA HOSPITAL AND ALMSHOUSE.

DANVERS LUNATIC HOSPITAL,

TAUNTON LUNATIC HOSPITAL,

WORCESTER LUNATIC HOSPITAL,

WORCESTER INSANE ASYLUM,

MIDDLETOWN (CONN.) INSANE ASYLUM.

Institution Outfits a specialty. Send for Illustrated Catalogue and Price List, giving full descriptions.

E. HURLBURT, Manufacturer.

D. H. BENJAMIN, Gen'l Agent.

CORK-THREADS MATTRESSES

Are recommended by eminent medical authority as superior to any other for

ASYLUM, HOSPITAL or HOUSEHOLD USE.

The Cork that we use in the manufacture of these Mattresses is not cork shavings, granulated cork or cork chips.

We use only Curly Velvet-Cork Threads.

It is non-absorbent, dry and cleanly.

The presence of tannates in the Cork renders it a foe to vermin.

If soiled it can be easily cleansed without expense or skilled labor.

The Cork-Threads Mattress is made in pockets and is not tufted.



The Cork-Threads are loose in the pockets, and therefore the Mattress has more perfect, natural ventilation.

It readily adapts itself to the form of the body.

It is as easily shaken up as a pillow.

The daily shaking up gives the patient a fresh bed every night.

The Cork-Threads Mattress is much lighter than a hair mattress of the same size.

The expense of the Cork-Threads bed, for a period of ten years, is less than one-half that of hair or the inferior beds.

It is a better bed, hygienically, than hair.

We manufacture mattresses and cushions of any desired material, but confidently recommend Cork-Threads as superior in healthfulness and economy to extra-super drawings. Send for our pamphlet.

SPERRY & BEALE,

MANUFACTURERS OF MATTRESSES AND CUSHIONS,

No. 83 White Street, New York.

Please mention this Journal.

GREENHOUSES, SKYLIGHTS, &c.,

OF THE BEST DESCRIPTION, ARE BUILT BY

THE RENDLE COMPANY, [LIMITED,]

OF NO. 2 WALL STREET,
NEW YORK.

Gold Medal Awarded International Exposition, New Orleans, 1884.

REFERENCES:

Dr. J. B. ANDREWS, State Asylum for the Insane, Buffalo, N. Y.

THE STATE LUNATIC ASYLUM, Utica, N. Y.

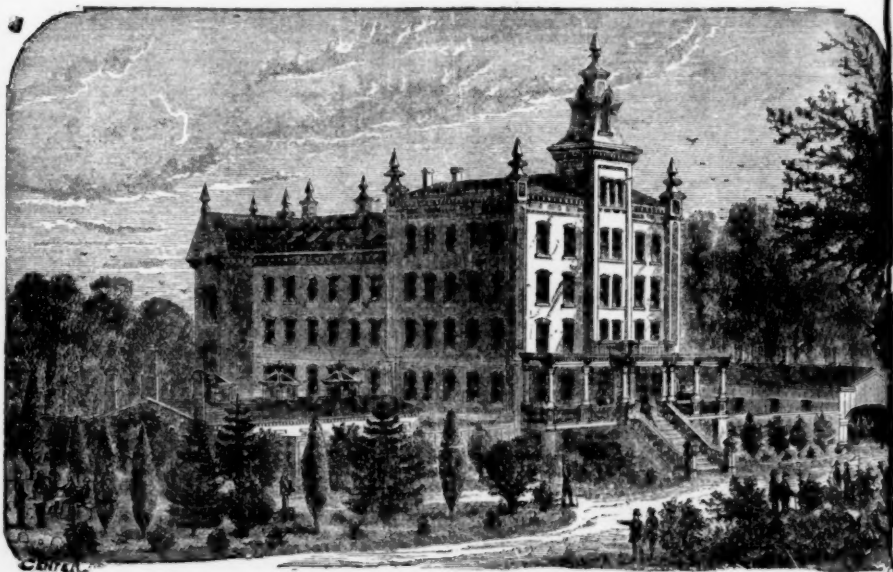
THE NEW YORK CENTRAL AND HUDSON RIVER RAILROAD.

And all INDIVIDUALS, CORPORATIONS, ASYLUMS, etc., having had experience with our work.

Send for Illustrated Circular descriptive of

The Rendle Patent System of Glass Roofing WITHOUT PUTTY.

The Inebriates Home, Fort Hamilton, N. Y.



INCORPORATED 1866.

A Hospital for the Treatment of ALCOHOLISM and the OPIUM HABIT.

President and Consulting Physician, THEODORE L. MASON, M. D.
Attending Physician, - - - L. D. MASON, M. D.
Superintendent, - - - J. A. BLANCHARD, M. D.

Patients are received either on their application or by due process of law. For mode and terms of admission apply to the Superintendent, at the Home, Fort Hamilton, (L. I.), New York.

Two daily mails and telegraphic communication to all parts of the country.

HOW TO REACH THE INSTITUTION FROM NEW YORK.—Cross the East River to Brooklyn on Fulton Ferry boat, and proceed either by Court Street or Third Avenue horse cars to transfer office; or, cross from South Ferry on Hamilton Avenue boat and proceed by Fort Hamilton cars to transfer office, thence by steam cars to the Home. Request the conductor to leave you at the Lodge Gate.

WANTED.

A graduate in Arts and Medicine of Queens University, Kingston, Ontario, unmarried, aged 29, who has studied abroad, and had experience in a Canadian and an American Asylum, desires an assistant-physicianship.

Address the Editor of this JOURNAL.

NOW READY,

A General Index of the AMERICAN JOURNAL OF INSANITY for the first forty-five volumes, (1844-89.)

Prices: Paper, \$2.00; Cloth, \$2.50; Half Leather, \$3.00.



An Artistic Periodical

WITHOUT LETTER-PRESS.

PUBLISHED MONTHLY.

Each Issue of "SUN AND SHADE" Consists of Eight or More Plates of the Highest Grade, on Paper 11 x 14 Inches.

A YEAR AGO we commenced the publication of our novel venture in journalism, "SUN AND SHADE," a "PICTURE PERIODICAL WITHOUT LETTER PRESS," almost as an experiment, with a modest list of less than fifty subscribers.

To-day we are printing an edition of 4,000 copies monthly. A sufficiently convincing proof of the wisdom of our hope that there was room for us.

In our rapid growth the wish has been indicated unmistakably for the higher grade of pictures and of the higher class, always for quality rather than quantity. Following rather than leading such a wish, we feel that we make no mistake in marking the future career of the Magazine to be rather that of an "ARTISTIC PERIODICAL," than "A PHOTOGRAPHIC RECORD OF EVENTS."

Our efforts, therefore, will be directed in the future to make "SUN AND SHADE" an artistic periodical which shall be not only pleasing but *educational* in its broadest sense. Some of our plans may be briefly referred to.

We shall reproduce the leading pictures in the great collection of the Metropolitan Museum of Art.

Within the covers of "SUN AND SHADE" will be found from time to time, reproductions of the works of American artists.

We shall especially endeavor to encourage the artistic side of direct photography in all its phases.

And we shall supplement these special features with examples of Sculpture, Architecture and Industrial Art.

If in the future we receive as hearty a response to our efforts as we have received in the past, our task will be indeed pleasant, and our road to success a royal one.

THE SUBSCRIPTION PRICE FOR "SUN AND SHADE" IS \$4 PER YEAR, commencing with No. 5, or any subsequent number. Single or sample copies, 40 cents. Orders for copies of Nos. 1, 2 and 3 will be received at 60 cents each. No. 4 at \$1.

THE PHOTO-GRAVURE COMPANY,

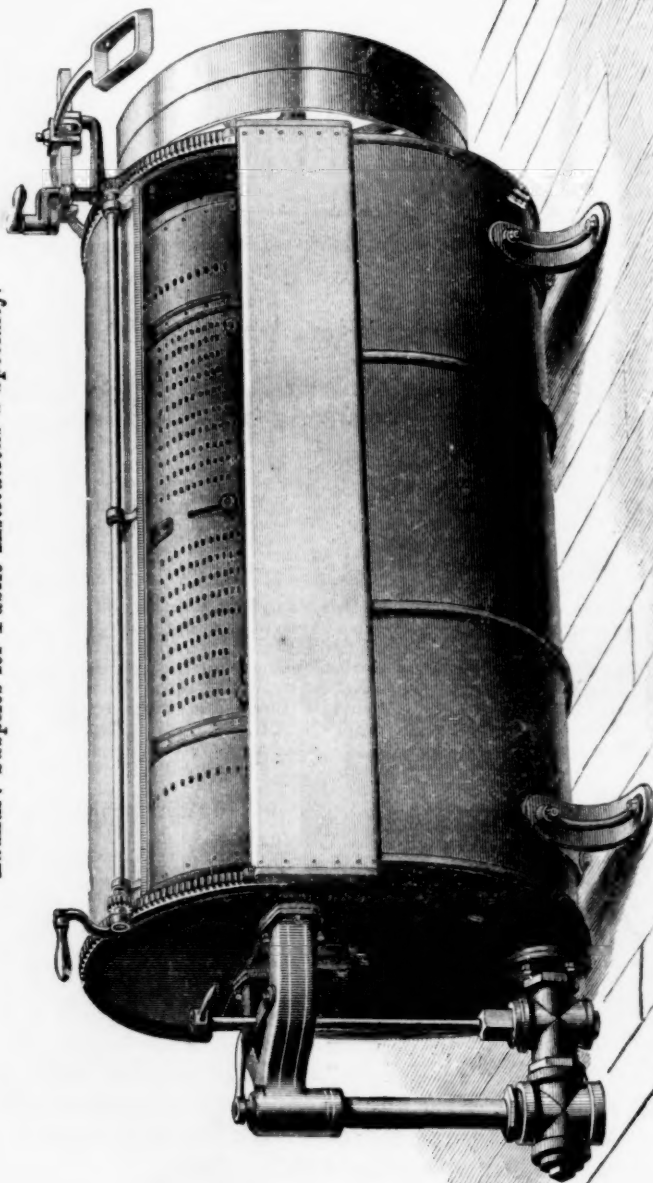
137 West 23d Street,

NEW YORK.

After November 1st.

XIII

HAMILTON E. SMITH'S
METALLIC WASHERS AND AUTOMATIC IRONERS.
 Laundry Supplies for Public Institutions a Specialty.



Engineers' Plans and Estimates Furnished on Application.
 Sanitary considerations alone should recommend this machinery. For full descriptive circular, address:

THE HOSPITAL SUPPLY CO., - - **36 Dey Street, New York City.**

PEPTONISED MILK,

(FAIRCHILD PROCESS.)

*The Ideal Food for the Sick, the Delicate, the Consumptive,
the Habitual Dyspeptic, the Diabetic.*

Peptonised Milk is milk in which the caseine has been wholly or partially converted into *peptone*, the degree of this conversion to be controlled at will, as determined by the needs of the case. All the other elements of the milk, the sugar, fat and mineral salts, are already provided by nature in a condition for perfect assimilation, *without digestive effort*.

ONE PINT OF MILK, when peptonised, contains two ounces of total dry solids—MILK PEPTONES, MILK SUGAR, FAT and ASH.

Of BEEF TEA, Dr. CHRISTISON says: 'He was able to obtain but a *quarter of an ounce of solid residue in a pint*.'

This solid residue consists of "besides the trifling amount of proteid material and of fat (which latter, in practice, is guarded against with great care), *only the salts of the muscle, the hematin and allied pigments, traces of sugar, perhaps, some lactic acid, and the nitrogenous extractives creatin and its congeners*. As the original half pound of muscle may contain about forty to sixty grains of the salts, and ten to twelve grains of the

nitrogenous waste products, the beef tea (half pint) certainly contained no more."
—Prof. BAUMGARTEN.

Of BEEF EXTRACT, Dr. PAVY says: "There are grounds for believing that a considerable proportion consist of products of proteid decay, materials in course of retrograde metamorphosis, that are of no use as nutritive agents."

The well nigh superstitious ideas entertained by the *laity* of beef tea, is expressed in the allusion to the "*strength*" which is popularly supposed to be extracted in the *tea*; after which the *beef* is thrown to the dogs. The working man makes soup from a joint and consumes the "*strength*" and the *beef* both.

The medical profession insist that patients shall profit by the knowledge and progress of medical science, by the use of artificially digested fresh milk, etc. The Nostrum advertisers usurp the functions of the physician by prescribing fictitious "foods for invalids," foods which medical science has long since condemned.

PEPTONISING TUBES

In boxes of one dozen tubes, at 50 cents retail. Each tube peptonises one pint of milk.

Pamphlets and samples gratis to physicians.

FAIRCHILD BROS. & FOSTER,
82 and 84 Fulton Street, New York. }

XV

THE "AUBURN" Watchman's Register, Fire and Superintendent's Alarm.



The only System combining a Fire and Superintendent's Alarm, and the only one suitable for Asylums, and specially adapted to their uses.

Adopted by several of the largest Insane Asylums throughout the country, including in this State those at Utica and Willard.

By the use simply of a different key in the box, either the watchman registers his rounds, or a physician's call, or a call for help is made from any ward, or an alarm of fire is given; striking the number of the ward, and noting in either case on the annunciator connected with the register the number of the room or ward from which the call is made.

Our Thermostat system, connected with the register, will send in an alarm of fire automatically, striking on a bell the number of the room or ward, (the same as if sent in by a watchman), and being connected with the same wires as those used for other purposes in a clock a test is secured of our combined system every hour of the night. This is the only open circuit system so tested.

Descriptive pamphlets sent on application, and estimates furnished. Address all communications to

BUNDY MANUFACTURING COMPANY,
Binghamton, N. Y.

DÜHRKOP'S
Patent Bakers' Ovens,
THE BEST AND MOST DURABLE.

SAVES FUEL AND LABOR.

The Dührkop Patent Ovens are noted for their simplicity of construction, and being built throughout with solid fire bricks, are the most durable ovens made.

The heat in upper and lower ovens can be regulated at will, in the most simple manner.

Used in all the principal cities in Europe and America.

Following are the names of a few of the parties in the United States using the Dührkop Patent Ovens:

Fleischman's Vienna Model Bakery, New York.
The O. K. Model Baking Company, New York.
Larrabee's Cracker Bakery, New York.
The John H. Schultz Company, Brooklyn, N. Y.
The William Smith Baking Company, Chicago, Ill.
Charles Schneider Bakery, Washington, D. C.
George F. Droste Bakery, New York.
F. Egler Bakery, New York.
The Cruett Bakery, Baltimore, Md.
Meinert's Bakery, Toledo, Ohio.
Root & Sons' Bakery, New Haven, Conn.
John Probst Bakery, Brooklyn, N. Y.
Mangas & Schmidt Bakery, Newark, N. J.
A. Turkes Bakery, Newark, N. J.
D. A. Fritsch Bakery, Newark, N. J.

Special References: New York State Lunatic Asylum, Utica, N. Y., and
Hon. I. G. Perry, Capitol Commissioner, Albany, N. Y.

For Circulars, Information and Estimates, address,

FREDERICK DÜHRKOP, *Patentee*,
550 East 82d Street, NEW YORK.

PHENACETINE-BAYER.

In therapeutic action it is like all the analgesic antithermics, it has a double action—it lowers temperature and soothes pain. The lowering of the temperature is noticeable in cases of pyrexia. In fevers, $7\frac{1}{2}$ grains of Phenacetine lowers the temperature by 1.8° to 3.4° F., and the antithermic action following such a dose lasts four hours. In certain cases the apyrexial period is more prolonged even from the same dose. Phenacetine is thought by some to be superior to antipyrin and acetanilid in producing marked antithermic effects without toxic phenomena. But it is above all as an analgesic that Phenacetine outrivals its predecessor. While it is as powerful, it does not produce pain in the stomach or the scarlatina-form rash of the antipyrin, nor does it give rise to the cyanosis of the acetanilid. However prolonged may be its administration, no bad effect has ever been seen from its use. It has been used for the relief of every form of pain, even for the lightning pain of tubes, with the best results. This double action, as an antithermic and as an analgesic, results from an effect produced upon the spinal cord; and Phenacetine may be considered a depressor of the excitability of the medulla. The digestive, respiratory and circulatory systems are not at all affected by Phenacetine. It is inodorous, it is tasteless, and it is innocuous.—[From a paper presented to the Central Kentucky Medical Association, by Steele Bailey, M. D., New England Medical Monthly, March, 1890.]

Phenacetine-Bayer, prepared by the Farbenfabriken, formerly Friedr. Bayer & Co., Elberfeld, is supplied by us in ounces and also in the form of our soluble pills and compressed tablets, containing two, four and five grains each. Either form may be obtained of any reputable apothecary.

ARISTOL.

Aristol, a combination of iodine and thymol, manufactured by the Farbenfabriken, formerly Friedr. Bayer & Co., Elberfeld, Germany, is a valuable, inodorous and non-toxic antiseptic remedy said to be superior to Iodoform, Iodole and Sozo-Iodole.

For further information regarding this new remedy we would refer to the notes we have published, which we will be pleased to mail to applicants.

SULFONAL-BAYER.

WM. H. THOMPSON, M. D., LL. D., in speaking of Sulfonal, says: "Sulfonal is a pure hypnotic, neither anæsthetic or depressing in character, and it does not affect the heart or circulation, and the sleep it produces is perfect. Being quite insoluble, it requires about three hours to become thoroughly dissolved in the stomach, and should be given about two hours before bed-time. As it is not affected by the digestive secretions, it may be given shortly after the evening meal.

Sulfonal is of great value in the insomnia of the insane, and the dose should be repeated once during the night if the sleep is too short. **It is specially recommended in cases of nervous insomnia**, also in the sleeplessness of delirium tremens. In the latter case, gr. xx. should be administered every two hours until lx. or lxxx. grs. have been taken, but it should be remembered that every case of delirium tremens is also a case of starvation, and to produce sleep the patient must be fed. Dose as a hypnotic, gr. xv-xx." [From Notes, Materia Medica and Therapeutics. Lectures delivered by Prof. William H. Thompson, M. D., LL. D., Edited by Wm. H. McEnroe, M. D.]

Sulfonal-Bayer, prepared by the Farbenfabriken, formerly Friedr. Bayer & Co., Elberfeld, is supplied by us in ounces and in the form of tablets of 5, 10 and 15 grains, put up in bottles of 10 and 100 tablets each.

We also offer Sulfonal-Bayer in the form of our soluble pills containing 5 grains each.

W. H. SCHIEFFELIN & CO.,
170 & 172 WILLIAM STREET,
NEW YORK.

Fellows' Hypo-Phos-Phites

(Syr: Hypophos: Comp: Fellows)

Contains **THE ESSENTIAL ELEMENTS** to the Animal Organization
—Potash and Lime;

The **OXYDIZING AGENTS**—Iron and Manganese;

The **TONICS**—Quinine and Strychnine;

And the **VITALIZING CONSTITUENT**—Phosphorus,

Combined in the form of a Syrup, with *slight alkaline reaction*.

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION in America and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

IN CASES where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

ITS ACTION IS PROMPT, stimulating the appetite, and the digestion, it promotes assimilation, and enters directly into the circulation with the food products.

THE PRESCRIBED DOSE produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of **mental and nervous affections**.

From its Exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

Prepared by **JAMES I. FELLOWS, Chemist,**
48 VESEY STREET, - NEW YORK.

Circulars Sent to Physicians on Application.

FOR SALE BY ALL DRUGGISTS

THE AMERICAN JOURNAL OF INSANITY,

APRIL, 1890.

CONTENTS.

Frontispiece.

PAGE.

PAGE.

David Yellowlees, M. D., LL. D.

Original Articles.

Alcoholic Hallucination. By Frederick W. Mann, M. D.,..... 439

Mania Following Ether. By W. A. Gorton, M. D.,..... 451

The Mechanism of Insanity. By Edward Cowles, M. D.,..... 457

Peculiar Manifestations in a Hysterical Boy. By A. H. Harrington, M. D.,..... 486

Clinical Cases.

Chloralamid as a Hypnotic for the Insane. By William Mabon, M. D.,..... 492

Sulphonal as Hypnotic. By Owen Copp, M. D.,..... 499

STATE *versus* COUNTY CARE, 504

Abstracts and Extracts.

Two Cases of Catalepsy...Delirium Tremens in Children...Hypnotism...A Case of so-called Soul-Blindness...Hypnotism in Germany...Warm Sand-baths in the Neuroses...Alterations of the Muscles in Psychoses...The Provision for the Insane in St. Petersburg...Chloralimide...The Accumulation of Bromides in the System...Provision for Insane Criminals...Pathological Effects of Compressed Air,..... 535-542

Book Reviews.

A Text-Book of Mental Disease, with Special Reference to the Pathological Aspects of Insanity. By W. Bevan Lewis, LL. R. C. P., (Lond.), M. R. C. S., (Eng.).... Annual of the Universal Medical Sciences. Edited by Charles E. Sajous, M. D.... Practical Electricity in Medicine and Surgery: By G. A. Liebig, Jr., Ph. D., and

George H. Rohe, M. D...The Neuroses of the Genito-Urinary System in the Male, with Sterility and Impotence. By Dr. Ultzmann...Spinal Concussion: Surgically Considered as a Cause of Spinal Injury, and Neurologically Restricted to a Certain Symptom Group, for which is suggested the Designation *Erichsen's Disease*, as one form of the Traumatic Neuroses. By S. V. Clevenger, M. D...Insanity in Australian Aborigines, with a Brief Analysis of Thirty-two Cases and a Case of Sporadic Cretinism. By Dr. F. Norton Manning...Ichthyosis Linearis Neuropathica. By Frederick Peterson, M. D...Clinical Memorandum. By Theodore Diller, M. D...The International Medical Annual and Practitioner's Index for 1890. Edited by P. W. Williams, M. D...The Insanity of Doubt. By Philip Coombs Knapp, A. M., M. D...A Case of Large Cerebellar and Several Smaller Cerebral Hemorrhages. By Theodore Diller, M. D...Methods of Examination in Medico-Legal Cases, Involving Suits for Damages for Real or Supposed Injuries to the Spinal Cord. By Philip Coombs Knapp, A. M., M. D., 543-554

Letter from France.

The Congresses held in Paris in 1889. Questions Relating to Mental Medicine,.....555

Notes and Comments.

David Yellowlees, M. D., LL. D... The Hospitalization of Asylums... The Fires at Worcester and Little Rock... The State Commission in Lunacy... The Tenth International Medical Congress...State *versus* County Care...Annual Meeting of the Association...Assault upon a Superintendent...Appointments and Resignations, 561-570

Obituary.

Edwin Arius Kilbourne, M. D.,..... 571

Carl Friedrich Westphal,..... 575

Max Leidesdorf, 576

